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SANITATION OF RURAL WORKMEN'S AREAS.

WITH SPECIAL REFERENCE TO HOUSING.

This report contains much valuable and practical information.

It is especially useful as a textbook for beginners in welfare supervision. The details set forth should serve as a guide to executives in welfare work who have not specialized in rural sanitation.

L. A. COOLIDGE,
Chairman Committee on Welfare Work of Committee on Labor, Council of National Defense.

The following is a report of the divisional committee on village and public sanitation, section on sanitation, committee on welfare work of the committee on labor, advisory commission, Council of National Defense.

This report is published by permission of Mr. Samuel Gompers, chairman of the committee on labor.

The divisional committee on village and public sanitation follows:

George M. Kober, chairman, professor of hygiene, Georgetown University.
John W. Kerr, surgeon, United States Public Health Service.
Lawrence Veiller, secretary National Housing Association.
Charles H. Verrill, Bureau of Labor Statistics, Department of Labor.
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In contemplating problems of rural housing with special reference to the stress upon industry on account of the war, two sets of conditions may be expected to arise:

(1) The sudden enlargement of existing industries and workmen's residence areas.

(2) The establishment of new industrial plants and residence areas and their mushroom growth.

GENERAL REMARKS AS TO SANITATION OF ENLARGING AREAS.

In enlarging existing areas there will be found certain insanitary conditions which must be remedied before a constructive system of health supervision can be adopted. The best use must be made of areas in or near the existing location, and where possible such areas must be made sanitary.

But although there is less choice as to location in the case of enlarging areas, new buildings should be located on as high and dry ground as possible, due attention being paid to the need of drainage and the desirability of taking advantage of natural fall for this

purpose. In those damp and wet areas already built over, thorough drainage must be provided. Location of new buildings should also take into account the availability of a potable water supply and the possibility of connecting with sewers or of the construction of new sewers.

SELECTION OF NEW VILLAGE AND CAMP SITES.

An elevated site should be preferred because of better natural drainage, purer air, freedom from dampness, and greater safety from inundations. It should be remote from breeding places of mosquitoes. "Made soils" should be avoided for building sites, especially because of a series of cases of carbon-monoxide poisoning which have recently occurred in buildings of a construction camp, situated on an old dump, in which combustion continued at considerable depths.[1]

PREPARATION OF THE SITE.

The site should be properly graded to facilitate the removal of surface water. In localities where the ground water is close to the surface, proper grading and ditching around the tents or temporary shacks are necessary, and in camps or villages of a more permanent character, subsoil drainage is required.

LAYING OUT OF STREETS.

Streets should be laid out with due regard to exposure to sunlight and the prevailing winds. A southeast-northwest and a northeast-southwest or a true meridian are the directions generally preferred. Too great a proportion of the lot should not be used for building purposes. Ample space should be left both front and rear and at the sides for light and ventilation. In camp sites the problem of exposure to sunlight and air is generally solved by placing the tents or shacks with intervals between them of at least one and a half of their height. (Fig. 1.)

In village planning the possibility of future expansion and permanency should be kept in mind and suitable provisions made for public squares, parks, and playgrounds.

IMPROVEMENT OF STREETS.

A properly graded and well surfaced (or even cinder) roadway not less than 18 feet in width, to accommodate vehicular traffic, with 2-foot gutters and 3-foot sidewalks, is extremely desirable. Space should be reserved between the gutter and sidewalk, or on the building lot, for shade trees and lawns. The character of the material selected for roadbeds and sidewalks will naturally depend upon the availability and cost of the material. Bulletin 87, Department

[1] Albaugh, R. P., J. A. M. A., Apr. 7, 1917, p. 1033.

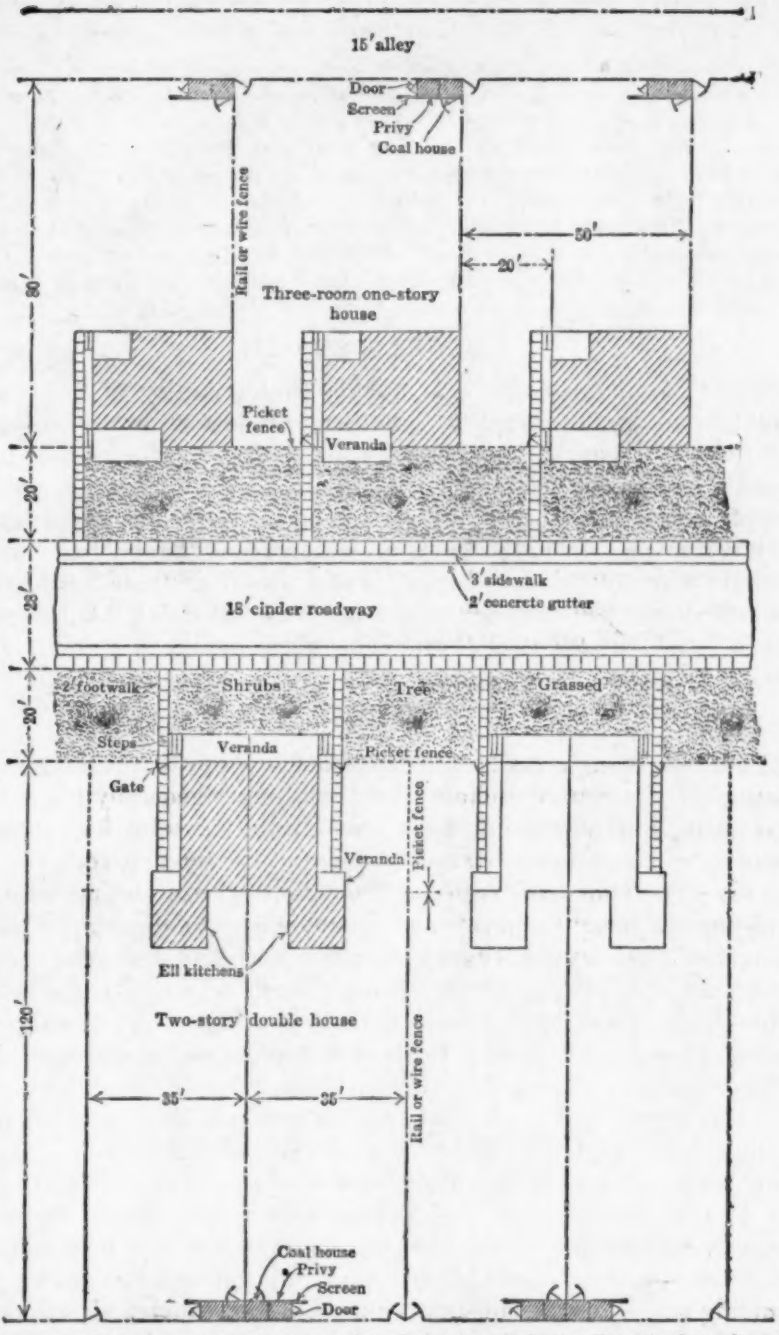


FIG. 1.—Suggested arrangement for houses and lots: Picket fence in front, rail or wire fence along sides and in rear, footwalks along side of house, houses not directly opposite one another. (Bulletin 87, U. S. Bureau of Mines.)

of the Interior, Bureau of Mines (1914), page 11, gives the following directions for making cement sidewalks and gutters:

The ground is leveled off about 10 inches below the finished grade and, if necessary, is well settled by ramming. A 5-inch foundation of coarse gravel, broken stone, or coal ashes is placed and rolled. A 3-inch layer of concrete, made from 1 part cement, 2 parts sand, and 3 parts stone and mixed dry, is laid on the foundation and covered with a 1-inch surface coat made of 1 part cement and 1 part sand. The sidewalk should drain towards the gutters, with a slope of 1 in 10, and should have expansion joints every 5 or 6 feet. In case there is no underground sewer system the street gutters should be designed with a view of also removing kitchen slops and wash water as well as surface drainage. For this reason they should be made of concrete, box-shaped and smooth surface, with rounded corners.

WATER SUPPLY.

Exact standards as regards quality and quantity of the water supply will be furnished by another committee, but it appears advisable to consider the methods for preventing the pollution of potable water for isolated houses and villages lacking a general supply. Briefly, it may be stated that spring water, deep or artesian well water, and upland streams are regarded as potable, rain water stored underground and surface water from cultivated fields are looked upon with suspicion, and river water to which sewage gains access and shallow wells are considered dangerous. Preference should be given to main springs and artesian or deep-well water.

Springs.

Pollution of a spring may come from seepage of polluted water through the soil above, from direct washing of surface water into the spring, or from dipping dirty vessels into the spring. Protection against seepage is best accomplished by not locating a privy or stable on the slope above the spring. Protection against surface washing will depend upon the conditions surrounding the spring. A ditch should be dug on the slope above the spring to lead the surface water around it and into the spring branch a safe distance below. This ditch should be as close above the spring as practicable, but should be deep and wide, with the dirt banked on the downhill side. The danger of surface pollution may be entirely prevented by inclosing the spring in a brick, masonry, or concrete box provided with a pipe inserted in the side for the overflow of the water. (Fig. 2.) Under the end of this pipe a bench or platform should be built on which to set the bucket while it is filling with water. This renders it unnecessary to dip vessels into the spring. Spring water supplies in limestone regions and those of an intermittent flow which frequently cease during the summer must be regarded with suspicion.

Artesian and Deep Wells.

To protect an artesian or deep well, one must see that the well driller, when the bore is first put down, carries the lining for some

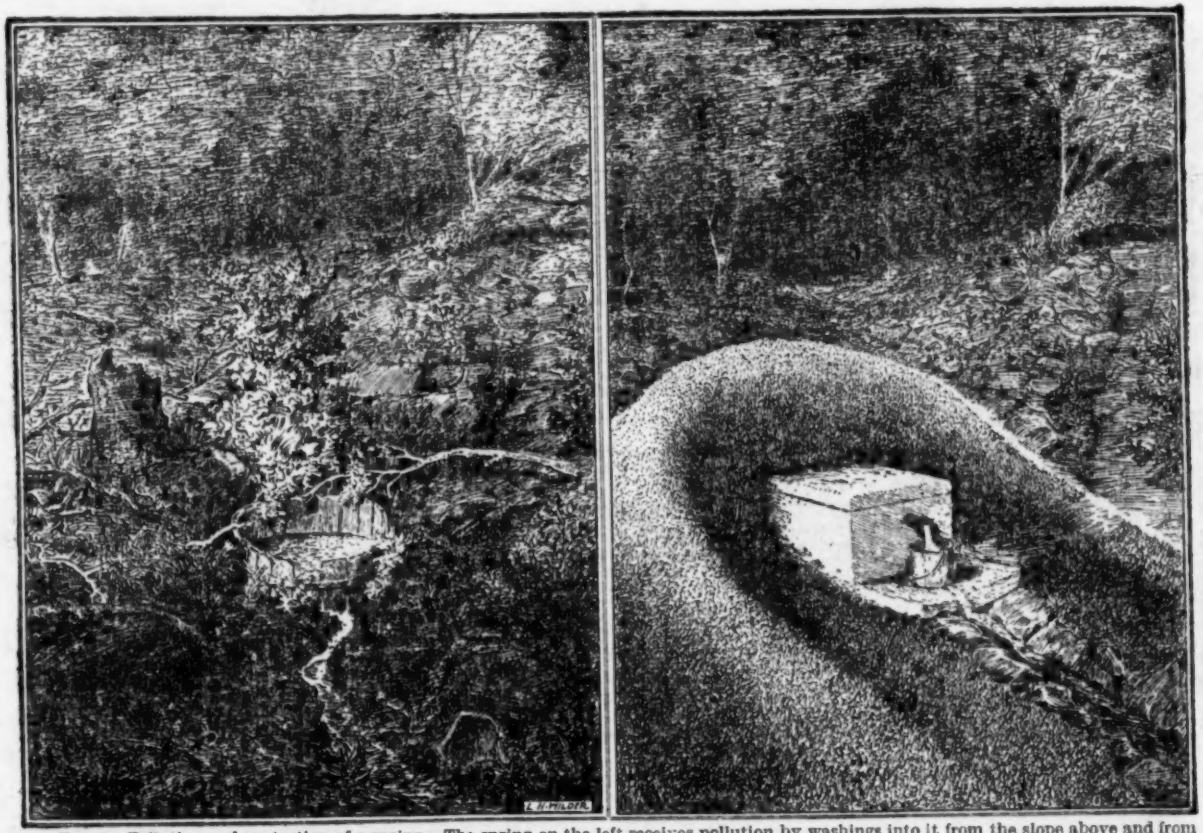


FIG. 2.—Pollution and protection of a spring. The spring on the left receives pollution by washings into it from the slope above and from the soil immediately around it. It may also be polluted by dirty vessels dipped into it. The spring on the right is protected against surface washings by the ditch and by the concrete spring box. It is inclosed and provided with a discharge pipe so that vessels need not be dipped into it. It furnishes water as pure as when it comes from the ground, unmixed with surface water or filth. It should furnish pure water.

distance into the rock, and that the joints in the pipe are screwed up tight. The well platform should be properly braced. It is an excellent idea to raise the surface of the ground about the well and

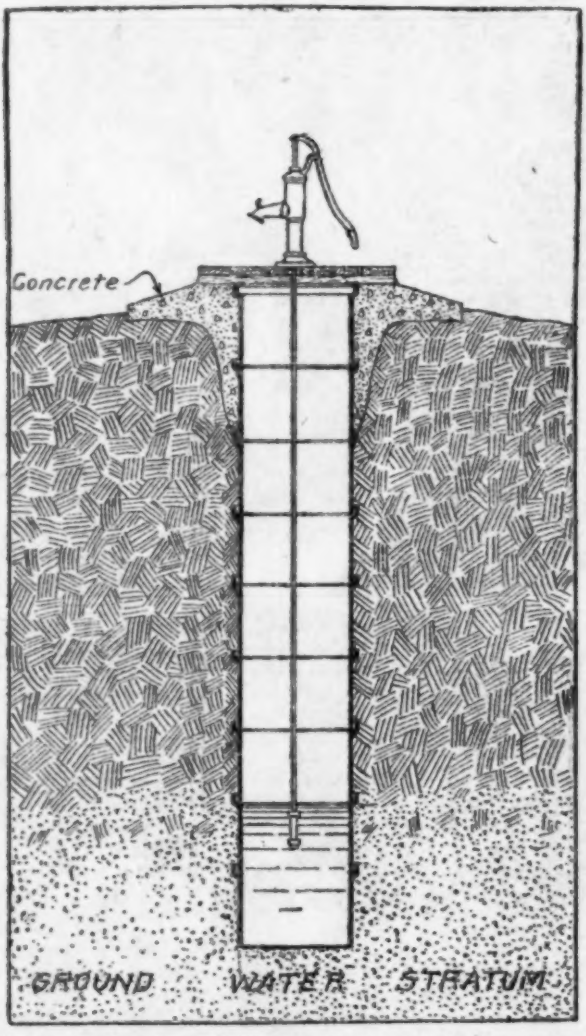


FIG. 3.—A model well, cased with terra-cotta pipe, curbed with concrete, and provided with a water-tight platform and a pump. The water from such a well is unmixed with surface water or filth. Properly located such a well should furnish safe and healthful water. (Virginia Health Bulletin, vol. 3, No. 4, 1911.)

to cover that part immediately about the top with a water-tight platform.

Surface Wells and Cisterns.

In the case of surface wells and cisterns, such a water-tight platform is essential. It may be made either of matched boards or of

heavy timbers with the cracks calked with oakum and tar; or, better still, it may be of concrete or cast iron. Any water-tight construction substantial enough to stand the weather and the weight put upon it will suffice. Special precaution must be taken to keep the joint at the foot of the pump or about the base of the windlass box water-tight. The curb may be of brick or masonry laid in cement

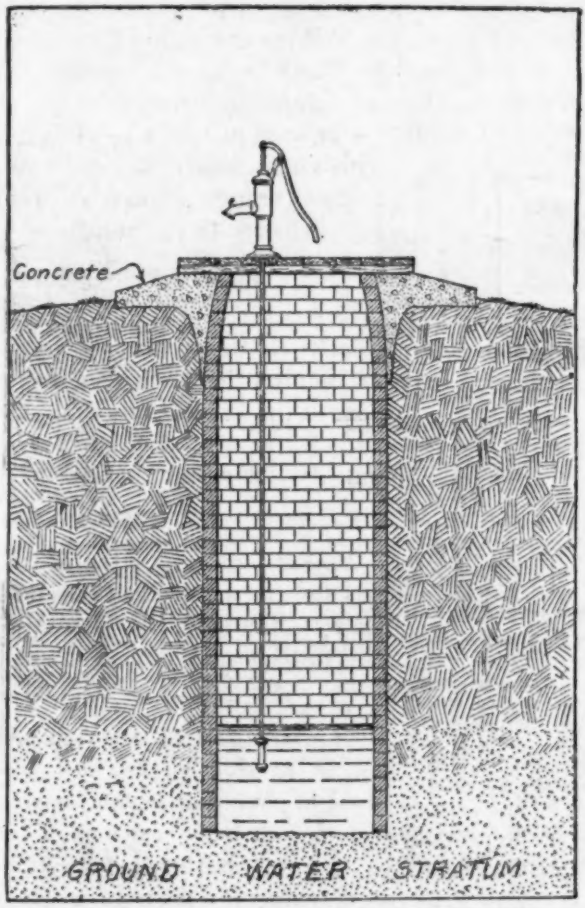


FIG. 4.—A mode well, cased with brick aid in cement mortar, and properly graded, curbed, and protected. (Virginia Health Bulletin, vol. 3, No. 4, 1911.)

mortar or it may be of concrete. It should extend at least 2 feet into the ground and rise at least 1 foot above the surface. The earth should be banked up around it so that surface water will be shed promptly. The casing may be of brick or stone laid in cement, of reinforced concrete or of terra-cotta sewer pipe with cemented joints. It must be absolutely water-tight down to the level of the ground water.

The location of the shallow well is of the greatest importance. It should be above any source of pollution (privies, pigpens, stables, etc.) and as far from it as possible. If the water is pumped to a tank and piped to the house and outbuildings, the well should be located in an open field 100 yards or more from the dwelling, stable, or privy. If not, the area occupied by the well should be inclosed and the precautions for preventing surface pollution rigidly carried out. The ground about the well should be kept scrupulously clean. The danger of polluting the water of a well through handling the bucket, chain, or rope is best avoided by using a pump. If a bucket is used, however, it should be inclosed in a windlass box and provided with an automatic device for emptying the bucket through a spout so that it need not be touched with the hands.[1]

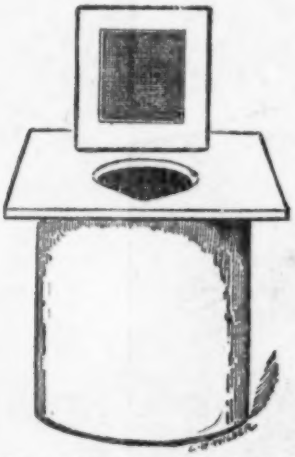


FIG. 5.—Covered can. The simplest type of sanitary receptacle privy. Used with a suitable drying powder, or disinfectant solution, it may be kept sanitary and practically odorless. The seat should be provided with cleats on the under surface to hold it in place on the can.

General Water Supplies.

General water supplies will not be considered in this report, except to say that in communities having such supplies every floor of the habitations should be provided with water taps, not only for convenience, but also for greater safety in case of fire.

COLLECTION AND DISPOSAL OF EXCRETA.

Broadly speaking, there are two methods for the safe collection and disposal of excreta—namely, the sanitary privy and the water carriage methods.

Sanitary Privy.

Sanitary privies are especially applicable in rural districts, but are sometimes used in communities for economic reasons, on account of the severity of the winters, or where a proper grade or a sufficient water supply can not be obtained for the removal of refuse by sewers. Pit privies, where the privy house is built over a hole dug in the ground and is moved to a new position after the pit is filled, can not be classed as sanitary, because of the danger of pollution of underground water, and the use of such privies is condemned. The only kinds of privies which may be classed as sanitary are those with either removable receptacles (tonneaux or box privy, pail system, incinerating system, etc.) or stationary receptacles from which the excreta or an effluent are to be removed. It may be stated that in ordinary habitations there should be at least one privy seat for every 10 persons or less.

[1] More detailed information as to water supplies for rural districts and villages without a general water supply will be found in Public Health Bulletin No. 70, U. S. Public Health Service (Good Water for Farm Homes, by A. W. Freeman).

Removable-receptacle privies.—There are several satisfactory types of these privies. The covered can type consists of a stout water-tight can fitted with a wooden top having a suitable hole in it to serve as the seat. (Fig. 5.) The hole in the seat is covered by a hinged lid. The seat board is closely fitted to the top of the can and the lid fits closely over the hole. To provide ventilation, the lid may be a framed screen.

The boxed-can type consists of a suitable water-tight receptacle, incased in a box which serves as the seat. (Fig. 6.) The receptacle may be a can, pot, or other water-tight vessel. For purposes of ventilation and easy removal, it is advantageous to have a space

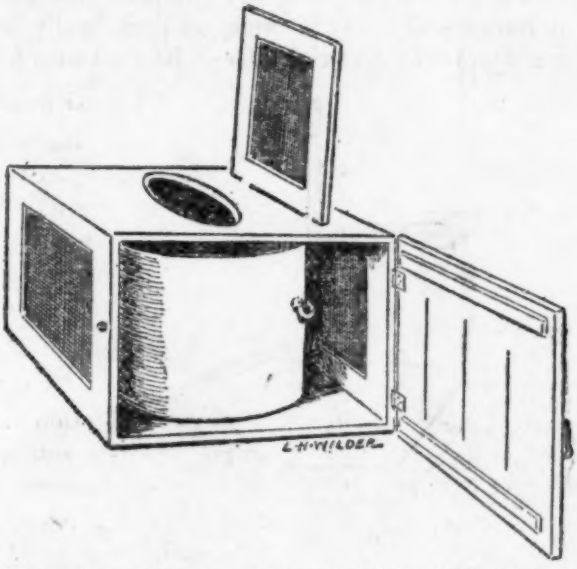


FIG. 6.—The boxed receptacle. Flies are excluded by the fly-tight box. Ventilation is provided by screened openings in the sides of the box and in the lid. The hinged front permits ready removal of the can for cleaning. Such a device is safe, sanitary, and convenient, and may be placed in an existing privy house or in any suitable outbuilding.

of about 2 inches between the top of the receptacle and the under surface of the seat and between the sides of the receptacle and the box. The box must be fly-tight and substantially built. The lid should be hinged at the back or to one side of the hole. It should be arranged to drop into place of its own weight when the privy is not in use. The top or front of the box should be hinged to permit removal of the receptacle for cleaning. Such a commode may be placed in a privy house or in any other suitable building, such as a barn or woodshed, and is thoroughly practicable for use. The boxed receptacle may also be made a part of the structure of the privy house, the back and sides of the house serving as parts of the box.

The box should be well ventilated to remove objectionable odors. This may be done by means of screened openings in the seat cover

and the sides of the box, or, better still, by a ventilating flue from the box to the outside. This flue may be one made of boards, or a triangular flue made by nailing a board upright in the angle formed by one side and the back of the privy house. The opening of the flue in the box should be screened against flies. As a further means of preventing markedly disagreeable odors from the privy contents, as well as making the matter safe and less disagreeable for removal and final disposal, the use of drying powders, such as lime, dry earth, and ashes, or a disinfectant is approved. In the case of the earth closet, dried and sifted earth is retained in a hopper above and about 1½ pounds falls on the excreta when the plug is pulled up. This is sufficient to remove all smell and form a compost which is inoffensive as long as it remains dry. It is removed periodically and may be stored under a fly-proof cover until it can be used as a fertilizer and

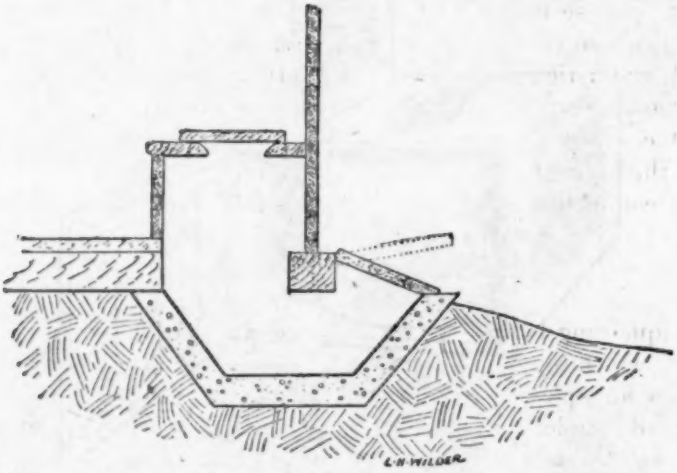


FIG. 7.—A stationary-receptacle sanitary privy with a cement vault arranged for convenient cleaning.

promptly ploughed under the soil. Such compost should never be used as a superficial fertilizer. For large camps strong boxes lined with sheet iron and long enough for six seats can be placed on low trucks and hauled directly to the fields.

If the privy is installed on an alley in a village or town and is to be cleaned by a public scavenger, the box should be arranged to open in the back of the privy, so that it may be cleaned from the alley. In such a case, it is also advisable to have the receptacles of the same size, so that the scavenger may replace the full cans with the empty cans and take the former, after covers have been placed securely upon them, to the point of disposal.

Stationary-receptacle privies.—If the receptacle does not have to be removed from the privy for emptying, it may be of large capacity, and thus the frequency of disposal of contents may be lessened. (Fig. 7.)

The receptacle may be of wood, iron, or concrete. Concrete is the most durable and, in the long run, the cheapest. The vault must be water-tight. Preferably it should be built wholly or partly below the surface of the ground to prevent freezing. The water-closets may drain directly into it, or else by means of soil pipes and drains. The same principles of fly-proofing, ventilation, and the use of drying powders and disinfectants apply to this as to the removable-receptacle privy. The construction should be such that the excreta will be accessible for safe and cleanly removal. Even if these precautions are taken, the vault system can be regarded as only fairly satisfactory.

If human excreta are permitted to undergo natural fermentation, the solid matter becomes liquefied and a considerable proportion of the excrement and urine is carried away by evaporation and gas formation. Thus the labor and cost of disposing of the matter may be lessened. These principles are applied in the L. R. S. privy,[1] (Figs. 8 and 9), which consists of the following parts:

(1) A water-tight tank, barrel, or other container (preferably of iron or concrete) to receive and liquefy the excreta.

(2) A covered water-tight can, pot, barrel, or other container to receive the effluent or outflow.

(3) A connecting pipe about 2½ inches in diameter, about 12 inches long, and provided with an open T at one end, both openings of the T being covered with wire screens.

(4) A tight box, preferably zinc lined, which fits tightly on the top of the liquefying barrel. It is provided with an opening on top for the seat, which has an automatically closing lid.

(5) An antisplashing device, consisting of a small board placed horizontally under the seat about an inch below the level of the transverse connecting pipe. It is held in place by a rod, which passes through a hole in the side of the seat and by which the board is raised and lowered. A layer of chips floated in the tank may be used instead of this device.

(6) A ventilating pipe, such as a stovepipe or wooden flue, connecting the space under the seat with the open air.

The liquefying tank is filled with water up to the point where it begins to trickle into the effluent tank. A pound or two of old manure should be added to the water to start fermentation. As an insect repellant a film of some form of petroleum may be kept on the surface of the liquid in each container. Water must be added to the liquefying tank from time to time, to prevent the matter from becoming too thick. Disinfectants must not be used in the liquefying tank because they stop the fermentation; but they may be used to good

[1] Lumsden, Roberts, and Stiles: "Preliminary note on a simple and inexpensive apparatus for use in the safe disposal of night soil." Public Health Reports, 1910, Nov. 11, v. 25 (45), pp. 1623-1629. Stiles and Lumsden: The sanitary privy, Farmers' Bulletin 463 (U. S. Department of Agriculture), pp. 17-21. Lumsden: Public Health Bulletin No. 51, pp. 46-49.

advantage in the effluent tank. The effluent is to be regarded as potentially dangerous and must be disposed of accordingly.[1]

Final disposal.—Final disposal of privy contents is important, and it varies with the type and method of operation of the privy. Privy contents may be disposed of (1) by burning, (2) by discharge into a sewer, (3) by burial, either with or without disinfection by heat or chemicals.

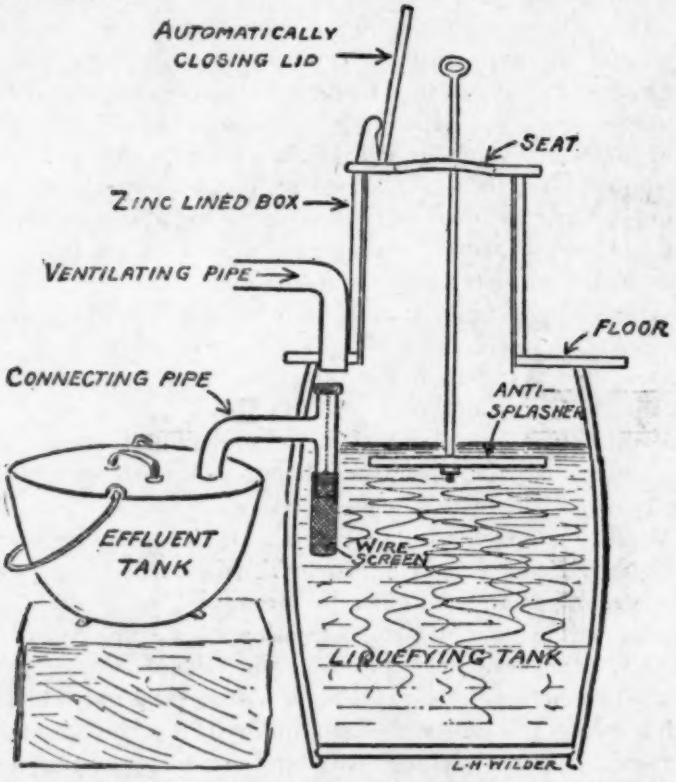


FIG. 8.—An L. R. S. privy with an ordinary vinegar barrel used as a liquefying tank and an iron pot for effluent tank.

Water Carriage System.

The sanitary privy does not provide for the removal of slop waters, which are usually carried by a kitchen drain into sumpt holes, a cesspool or dry well, or into an open ditch or stream. For very temporary camps there is no serious objection to such methods of disposal. In more permanent camps these wastes should be disposed of in furrows of a garden spot, or run into concrete street gutters. A realization of the fact that the waste waters from do-

[1] Suitable plans for latrines will be found in the Military Surgeon for May, 1917, pp. 507-508, and the Advisory Pamphlet on Camp Sanitation and Housing, Commission of Immigration and Housing of California, pp. 27, 29, 31, 33, 35, 36. Public Health Bulletin No. 68 (Safe Disposal of Human Excreta at Unsewered Homes, by L. L. Lumsden, C. W. Stiles, and A. W. Freeman) will give additional information in regard to this subject.

mestic and industrial plants are quite as likely to prove a source of danger as the fecal discharges has brought the sewerage or water carriage system into deserved prominence. For permanent camps or villages a well-planned sewerage system must go hand in hand with a public water supply.[1]

COLLECTION AND DISPOSAL OF GARBAGE AND OTHER REFUSE.

For the reception of garbage, every camp or household should be provided with galvanized-iron, water-tight cans, with tightly-fitting lids to keep out flies and vermin. These cans should preferably be two feet or more in height where the owner can afford them. Other cans should be provided for ashes and sweepings. Where the refuse is to be incinerated, however, it may be collected in a single can, as is frequently done abroad. The cans should be removed regularly

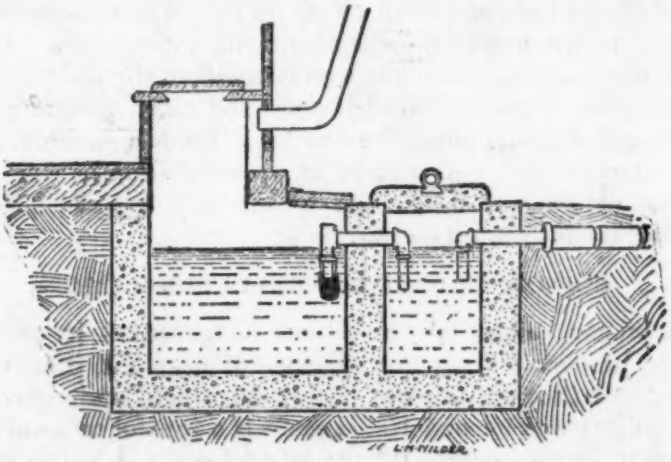


FIG. 9.—An L. R. S. privy with tanks made of concrete and with direct distribution of effluent into top soil.

at public expense. Stable manure should be placed in fly-proof manure pits and removed as often as necessary to points designated. The collection of waste paper and other rubbish should be conducted along economical lines.

Disposal in Rural Districts.

In rural districts the garbage is very properly fed to swine and poultry, but this procedure is justifiable only when householders have deep yards and maintain the premises in a sanitary condition. Where garbage is to be collected from a number of houses and fed to swine it should be free from broken glass and other injurious foreign matter. Garbage and other refuse in rural districts may also be used as a fertilizer or as fuel. When used for the latter

[1] Standards for sewer systems and sewage disposal were presented by another subcommittee.

purpose, in order to obviate offensive odors and enhance its fuel value, the garbage should first be strained for the removal of liquids and then placed for drying in a perforated receptacle in a hot-air chamber which has been devised in connection with the lower part of the kitchen stovepipe.

In communities where there is no demand by farmers for garbage or manure, special incinerators have been designed for the combustion of these wastes.[1] A suitable place should be provided for the disposal of ashes, cinders, and street sweepings. Such material may be utilized in filling up swamps and overflowed lands, which, although unsuitable for building sites, are well adapted for public parks and playgrounds.

Disposal in Towns.

In former years it was deemed perfectly proper in seaport towns to load the garbage and town refuse on barges so constructed as to admit of easily discharging their contents into the sea. Unfortunately, much of the refuse was washed back to the shores and thus became liable to pollute shellfish areas and cause discomfort to the bathers and dwellers along the beaches. From a sanitary point of view reduction and incineration, or a combination of the two, are methods of disposal which can be strongly recommended when economic conditions will permit.

HOUSING OF WAGE EARNERS IN LABOR CAMPS.

The primary object of habitations is to secure, in addition to privacy, protection from the influence of heat and cold, rain and storms, and thus to promote health, efficiency, and contentment. An insanitary and uncomfortable camp is a fruitful cause of disease, discontent, and instability of the labor force and has even led to riots. The excellent effects of proper housing conditions on the health of the laborers were conclusively demonstrated at Panama. It is well known that overcrowding favors contact and droplet infections from tuberculosis, pneumonia, influenza, septic sore throat, etc. The negro laborers on the Isthmus of Panama suffered very greatly from diseases of the respiratory organs, especially pneumonia, amounting at times to an epidemic. Gen. Gorgas scattered the men from large and overcrowded barracks into single huts and small rooms, with not less than 50 feet of floor space for each person, and reduced the pneumonia rate in a single year from 18.4 per 1,000 to 2 per 1,000.

Report of Industrial Commission of Wisconsin.

To give an appreciation of the unsatisfactory conditions of labor camps generally, the report of the Industrial Commission of Wisconsin

[1] For excellent improvised plans, see the Military Surgeon, May, 1917, p. 500-508.

(1914) may be briefly referred to. About 50,000 of the wage earners of the State were housed in camps. Overcrowding was practically universal. In railroad, lumber, ice, sugar beet, paper mill, dock workers', and construction camps the air space per capita was from 90 to 200 cubic feet, the average being about 125. The standard for

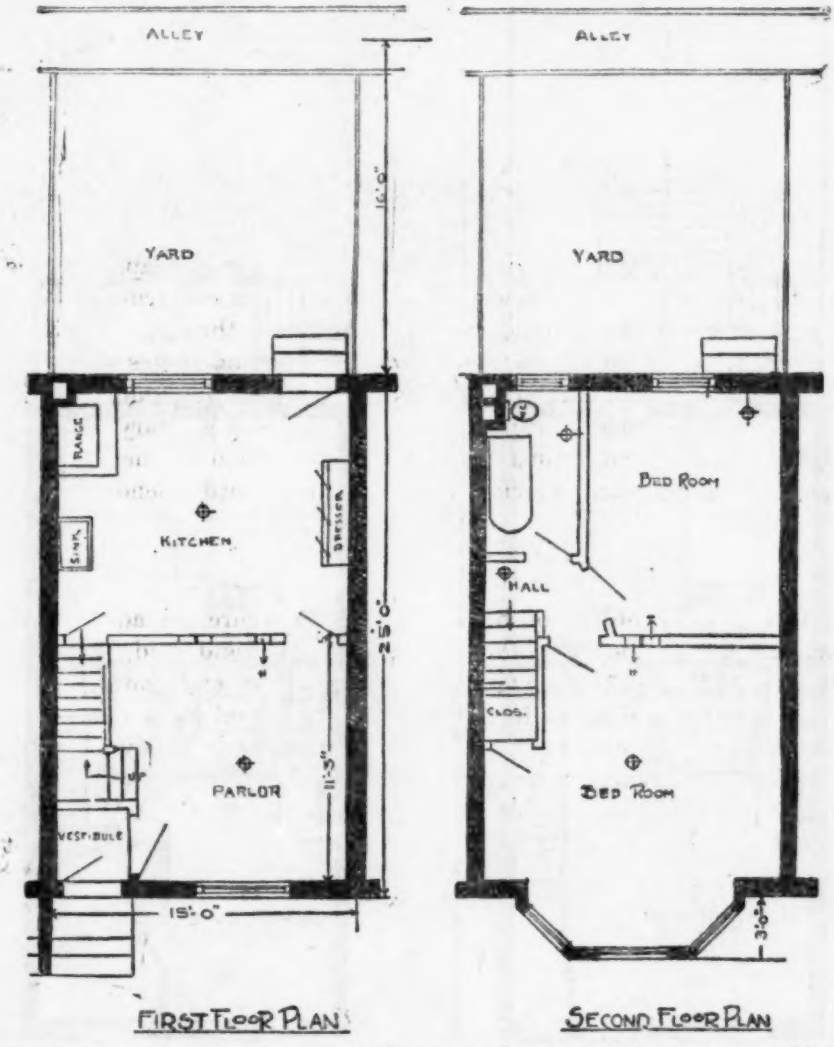


FIG. 10.—A house for each family—the Philadelphia type. Two-story brick houses, 4 rooms and bath. Selling price, $1,750. Rent, $13 a month.

air space is 500 cubic feet. Less room might be tolerated if the ventilation were good, but such was seldom found to be the case. In the box cars which housed the railroad gangs there was practically no circulation of air and the cars were always ill smelling. In the ice camps most of the rooms were heated by coal stoves and used for sleeping, living, smoking, and washing and drying clothes;

the windows were seldom opened. Where rooms are used for both living and sleeping, more air space per capita is necessary. Conditions similar to these were found in the other camps.

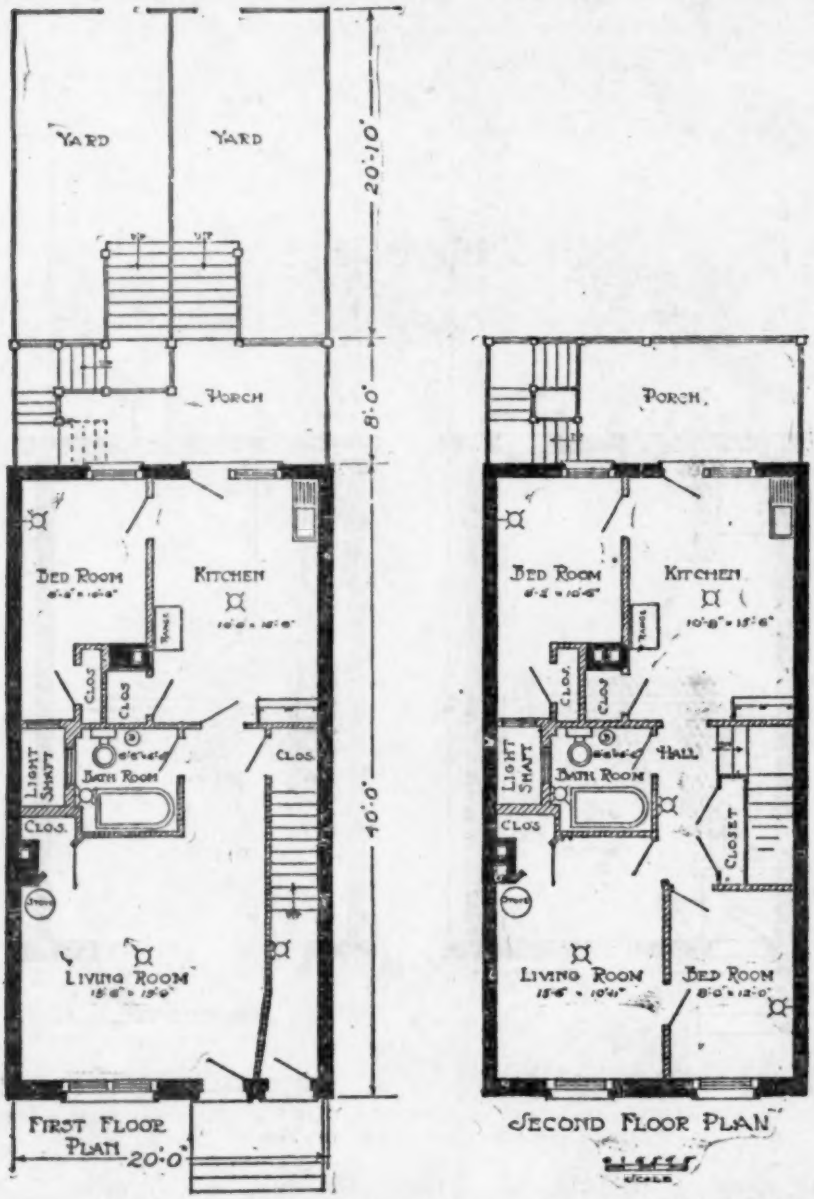


FIG. 11.—Two flat houses of the Washington Sanitary Improvement Co. Rent, $10 for first floor; $12 for second floor.

Few of these places were screened against flies. The kitchens were dirty and the flies in them almost intolerable. Sleeping conditions were bad, and the men frequently complained that their bunks

were full of vermin. In some camps no toilet facilities whatever were provided; in some the privy consisted of a shelf placed on the ground with no vault dug; and in others the vaults were overflowing but still in use. Water was frequently taken from wells near such privies.

The Wisconsin commission reports that the replies from seven cities, where more or less complete records have been kept of the place of origin of contagious diseases, show that within a period of three years 159 cases of typhoid, 12 cases of smallpox, 6 cases of diphtheria, 5 cases of measles, 3 cases of scarlet fever, 1 case of meningitis, and 19 cases of erysipelas could be traced to insanitary conditions in labor camps. Most of the cases reported came from the lumber camps and the next largest number from the railroad camps.

Survey of the Commission of Immigration and Housing of California.

On August 3, 1913, a riot occurred on a hop ranch near Wheatland, Cal., and the commission of immigration and housing concluded, after an investigation, that probably the most important contributory factor was the poor housing and sanitary accommodation afforded the workers. Further investigations made it clear that the Wheatland hop ranch conditions were not exceptional, but that similar insanitary housing conditions prevailed pretty generally throughout the labor camps of the State.

Camp Structures.

On account of their rapidly increasing cost and perishable nature, tents are being replaced by portable houses, not only for sleeping quarters, but also for kitchen and mess houses.

Portable buildings.—For temporary camps a portable building properly designed and constructed has many advantages over tents, railway cars, and other types of housing. They are usually turned out in standard sizes and may be constructed of wood, metal, asbestos material, or a combination of these materials. Those made entirely of metal are considered to have the advantages of long life and of being fire proof and relatively vermin proof, but are more expensive than wooden structures, somewhat heavier, inconvenient to replace in case of breakage and deterioration, hot in summer and cold in winter.[1] When made principally of wood they are less expensive, much cooler in summer, lighter and easier to move and handle, but subject to damage or destruction by fire, more difficult to keep clean and free from vermin, and shorter lived.

It is claimed for the asbestos building construction that it can be erected in a short time by unskilled labor. The sections are secured together by patent metal sheet connectors. No fastenings are

[1] Bulletin 414, U. S. Department of Agriculture, Office of Public Roads and Rural Engineering.

required through the sheets, so that when knocked down the parts are in perfect condition for reerection. The sheets are of standard size, at present 8 feet by 21 inches, but this may be changed to conform to a standard specification of the buildings. Only one screw or bolt is required in the top and bottom ends of the metal sheet connectors.

The material is considered absolutely fireproof, vermin proof, and waterproof, and not affected by sudden changes in temperature. The walls are perfectly smooth and the buildings can be easily fumigated and heated, and are also cool in summer. No painting or plastering is required.

Bulletin 414, Department of Agriculture, Office of Public Roads and Rural Engineering, states on page 136:[1]

Whatever material be used in the construction, the following desirable features should be embodied in the design:

(1) The sections of which the building is composed should be of such size as to permit convenient hauling and erecting. They should not be too large for transportation on an ordinary wagon bed, and in weight they should not exceed approximately 200 pounds, the maximum weight which can be handled successfully by two men in erecting and tearing down.

(2) The sections should be so designed and the connections so made as to secure the maximum of flexibility in the building and permit ready reduction or increase in capacity to accommodate any number of inmates.

(3) All parts and sections should be constructed by template or pattern, in order that similar parts may be absolutely interchangeable.

(4) All units should be so simple in design that they may be constructed by relatively inexperienced labor. Complicated joints, irregular shapes, and difficult cuts should be avoided.

(5) All the parts should be so-called stock articles or easy to improvise, in order that the cost may be reduced to a minimum and that renewals may be made with the greatest ease.

Standards for Air Space.

The minimum amount of air space to be allowed for each inmate should be given careful consideration. In 1912 the United States Public Health Service, in connection with the sanitation of Government buildings, Washington, D. C., determined on a minimum standard of floor space of 50 feet and at least 500 cubic feet of air space, the distance between any two workers sitting opposite one another at a desk to be not less than four feet. These figures obtain in both naturally and artificially ventilated buildings.

In spite of the fact that newer theories in ventilation have been advanced since these standards were agreed upon and that authorities are of the opinion that deficient air space is in part compensated for by the maintenance of proper temperature, humidity, and motion of the air, it has seemed advisable not to alter the standards pro-

[1] In Bulletin 414 will be found a general plan for a portable building suitable for temporary camps. The Office of Public Roads and Rural Engineering, United States Department of Agriculture, is prepared to furnish upon application complete detailed plans and specifications.

mulgated, especially in view of our knowledge concerning the dissemination of many infectious diseases through the medium of secretions and contact through overcrowding.

The area of windows should be at least one-tenth of the floor space and in order that the light may penetrate all parts of the room, the windows should reach almost to the ceiling. The windows should be double sash, and for good ventilation such sash should slide up and down. Double-deck iron bunks with woven-wire mattresses may be used in semipermanent camps, but the space between the two tiers should not be less than 3 feet. The use of sleeping quarters in relays should be prohibited except in case of urgent necessity, and then only after thorough cleaning and airing. All camp structures except those of a most temporary character should have tongued and grooved wooden flooring at least 12 inches aboveground and placed upon suitable piers.

The plans and specifications of all buildings should be drafted so as to make them harmonious, and such plans should be subject to official approval before use. The buildings, after completion and occupancy, should be inspected regularly by the respective health authorities. By this means owners will be aided in securing cleanliness, the prevention of the obstruction of ventilation, and general camp sanitation.

PERMANENT HOUSES.

Preliminary Considerations.

The housing of the workers has very properly been made the subject of legislation in many countries and is a matter in which employers, employees, and the general public should be deeply interested. There are several systems of workmen's dwellings, viz, individual houses or cottages, a row of houses under one roof, and the so-called flats or tenements. Everyone recognizes the advantages of an independent house for every family, no matter how humble, and if this home can be in the country, or in a district where each house is entirely separate from all others and has its own yard and, if possible, a small garden, so much the better. Such ideal conditions may be attainable in industrial villages even for the unskilled laborer; but where real estate values render this impracticable, the problem of providing sanitary homes at reasonable rentals has been met in certain cities by the erection of two-story houses in blocks, each to accommodate a single family. The Philadelphia type of houses is illustrated and described in a paper by Miss Helen L. Parrish entitled: "One Million People in Small Houses," published by the National Housing Association in 1911 (No. 7). The plan (Fig. 10) provides four rooms and bath and can scarcely be improved upon. The Washing-

ton sanitary housing companies have limited their operations to the erection of two-story houses with two independent flats. There is nothing in common. Each tenant has a separate entrance and exit and a back yard opening upon an alley in the rear (Fig. 11). On a frontage of 60 feet the company can build three of its modern type houses accommodating six families and renting (six flats) for $66 per month. In the Philadelphia plan the same frontage would be occupied by four houses, accommodating four families and renting for $52 per month. The cost of three of the Washington houses, including land, would be about $7,200. The cost of the four single-family houses, as given by Miss Parrish, would be $7,000. The cost of the lot may be a factor in deciding whether the houses should be of the one-family or two-family type. The Washington four room and bath flat rents for $12 per month, while the Philadelphia plan gives the same number of rooms for $13 a month. If the land is already expensive, the argument for the two-family house is strengthened, especially when houses are built in blocks. Apart from lower rents, there is also economy in heating, since the kitchen range heats the entire apartment sufficiently except in extremely cold weather, when a small coal stove in the front room is used.

In large communities where the value of real estate compels the erection of tenements over two stories in height, the State should insist upon hygienic requirements as regards air space, light, and ventilation. No home can be considered sanitary where one room has to answer the purpose of a living room, sleeping room, and kitchen, or where the water-closet and bathroom are used by more than one family.

Houses for Mining Towns Also Suitable for Industrial Villages.

Bulletin 87, Department of the Interior, Bureau of Mines, prepared by Joseph H. White, supplies most valuable facts on the erection of well-lighted, well-ventilated, warm, attractive, and economical houses. While primarily intended to be units of a mining village or town, they are equally appropriate for any other industrial villages or individual enterprises. The bulletin offers valuable suggestions for the selection of a new isolated town site, the arrangement of the streets, the situation of the houses, and the house itself. Many of these suggestions are applicable to improving conditions in existing towns, in building new houses in old towns, or in repairing old houses. Emphasis is placed on the fact that as a rule a mining village has a shorter life than an industrial town, but it is stated that economy should be distinguished from cheapness, since "a cheerful, strong, healthy, virile race will not rise out of the filth and squalor of cheap hovels." A strong plea is made, however, for true economy upon the assumption that the miner himself is to pay for all that he gets and that the

FIG. 12.—PORTABLE BUILDINGS.

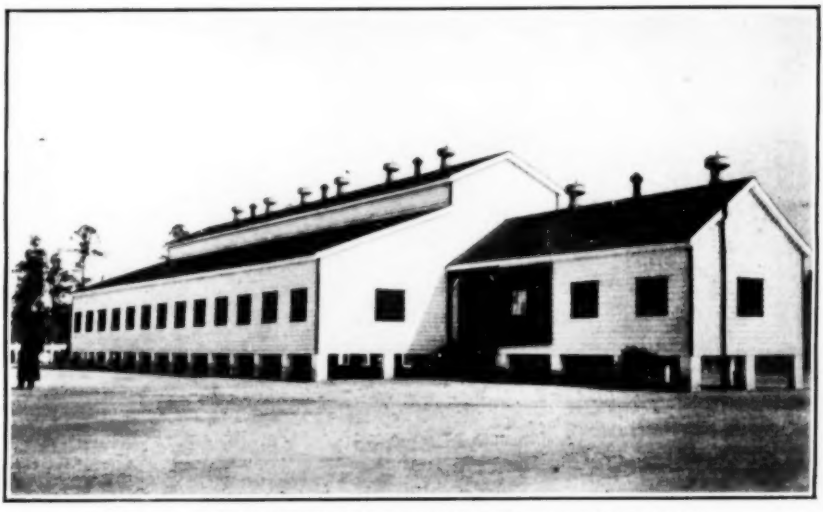
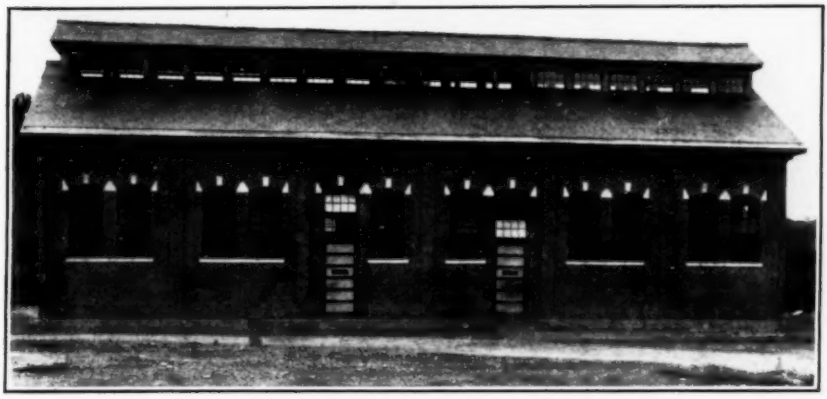


FIG. 13.—PERMANENT FRAME QUARTERS OF GOOD DESIGN.

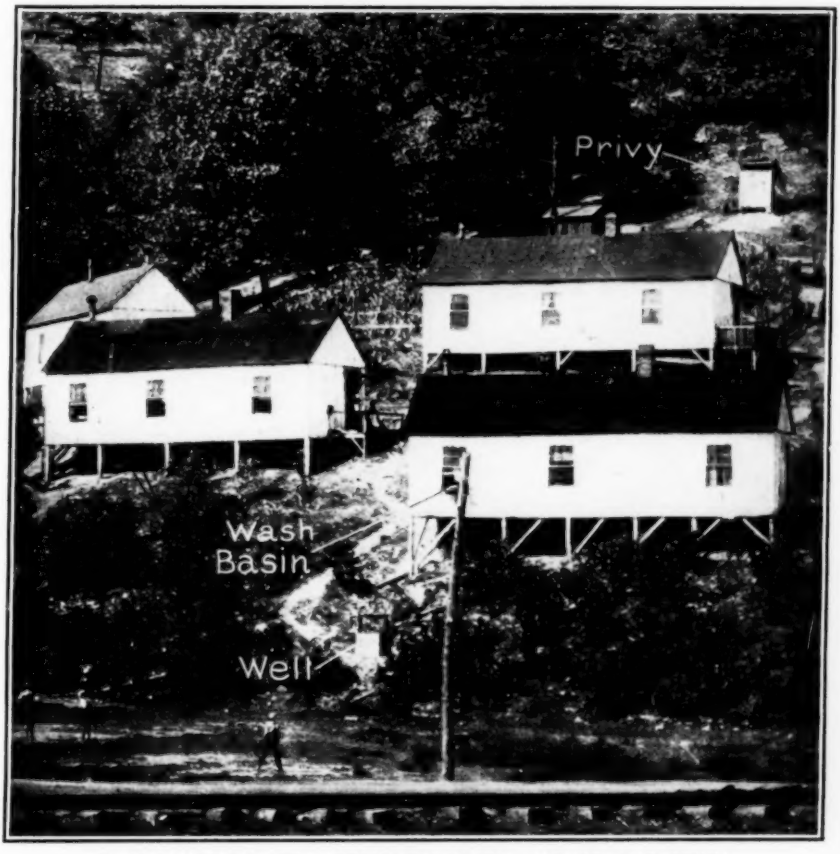
A. OLD-STYLE, CHEAPLY CONSTRUCTED, AND NEGLECTED COMPANY HOUSE.

B. THREE-ROOM MINER'S COTTAGE AT DEWMAINE, ILL.

FIG. 14.



A. CHANGE AND WASH HOUSE AT EDGEWATER, ALA



B. INSANITARY ARRANGEMENT OF WELL, HOUSE, AND PRIVY.

FIG. 15

A. MINER'S BRICK HOUSE AT MARIANNA, PA.

B. REAR VIEW OF COMBINATION COAL BINS AND PRIVIES FOR TWO DWELLINGS. THE LOWER DOORS ARE SET AT AN ANGLE SO AS TO CLOSE TIGHTLY.

FIG. 16.

investments are expected to offer a fair and reasonable return. It is gratifying to learn that some of the mining companies do not consider it good policy to realize as high a rate of interest as an independent realty company would be warranted in receiving. The bulletin recommends strict scrutiny of all expenditures involved and avoidance of fanciful and unnecessarily expensive buildings, so that the house rent may be reduced to a mimimum.

Selection of House.

Special pains should be taken in the selection of living quarters, no matter how humble they may be, as they constitute our abode for the greater part of our life. There is an old but true proverb: "Where the sun does not enter the doctor surely will." Dark, gloomy, and damp houses should be avoided; moldy spots on the walls or ceilings and a close, musty odor indicate dampness; and cheap rents should prove no inducement to occupy such quarters. Leaky roofs, gutters, and drain spouts, or a pile of ashes against a brick wall may keep the house damp and the cause should be promptly removed. In all such instances, as well as in the occupancy of recently constructed houses, it is very essential to dry out the house by heat and open windows, selecting for this purpose clear, dry days. Pettenkofer has calculated that 10,000 gallons of water are incorporated in a house requiring 100,000 ordinary sized bricks.

Since we know that the mortality from contagious diseases increases in proportion to the number of inmates of the rooms, hygiene requires that even the most modest dwellings should afford sufficient room to prevent overcrowding.

Construction of House.

Type of construction.—The type of construction of houses will depend on whether use is to be made of existing dwellings, or new dwellings of a temporary or permanent character are to be erected, and whether these are to be for family use or for unmarried men or women.

Choice of building material.—The choice of building material depends largely upon its availability and cost in the respective localities, the estimated life of the buildings, and climatic conditions. Frame construction is perhaps most commonly employed, although brick and sand or limestone are often used for exterior walls if the material is more readily available. Terra cotta in the form of hollow blocks have come into use for interior partitions and have recently been successfully employed for exterior walls in the construction of suburban houses. Such exterior walls are stuccoed with a cement mixture, which may be colored any agreeable shade and should be waterproofed with some of the approved compounds added while

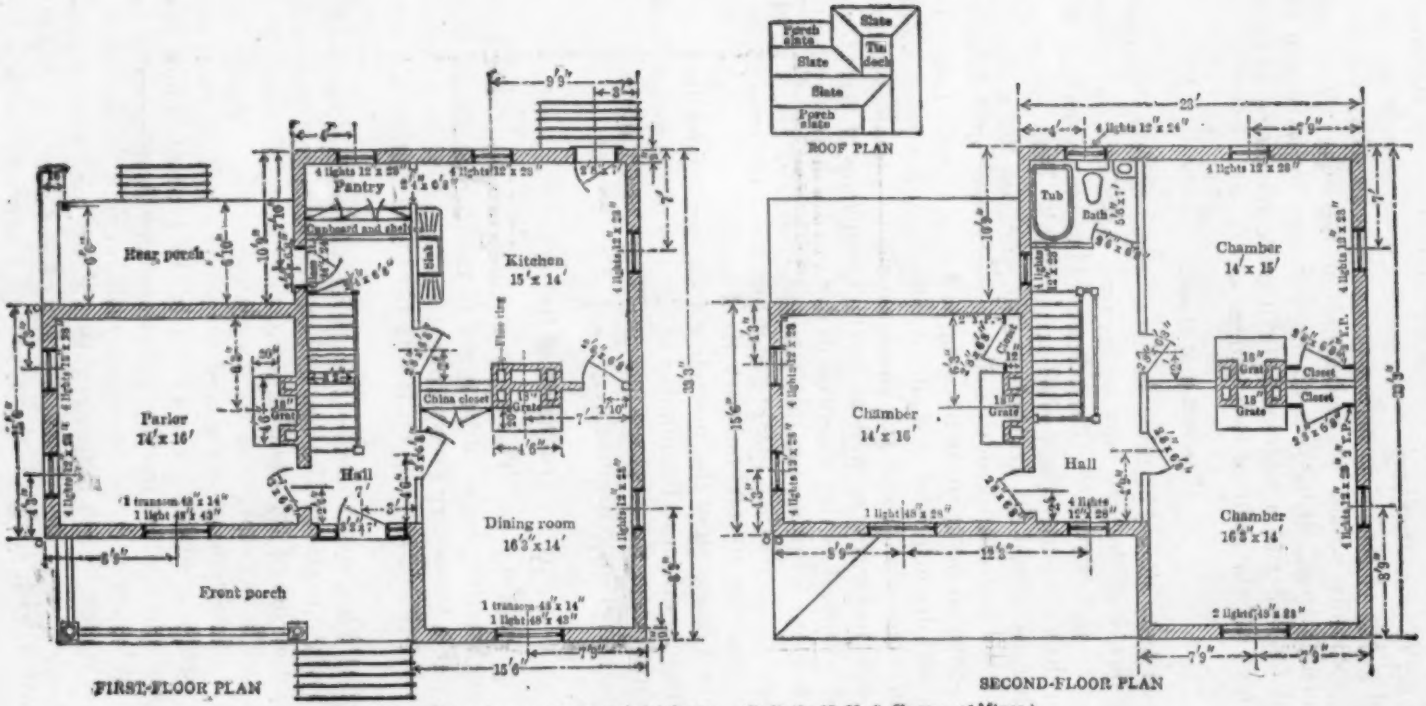
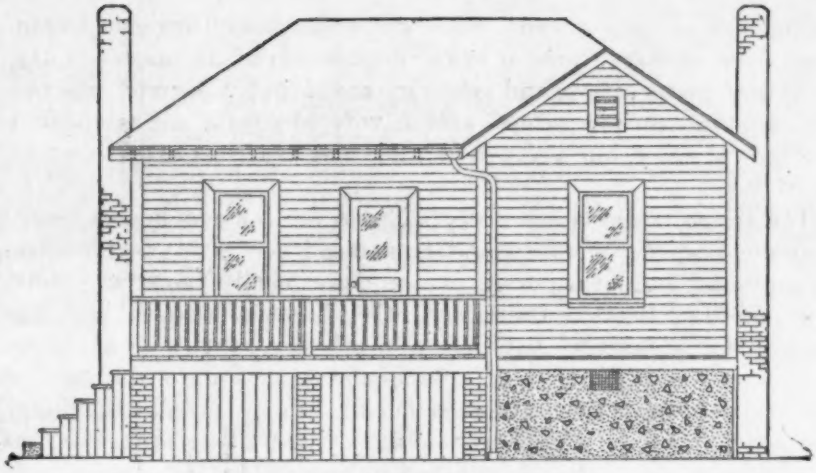
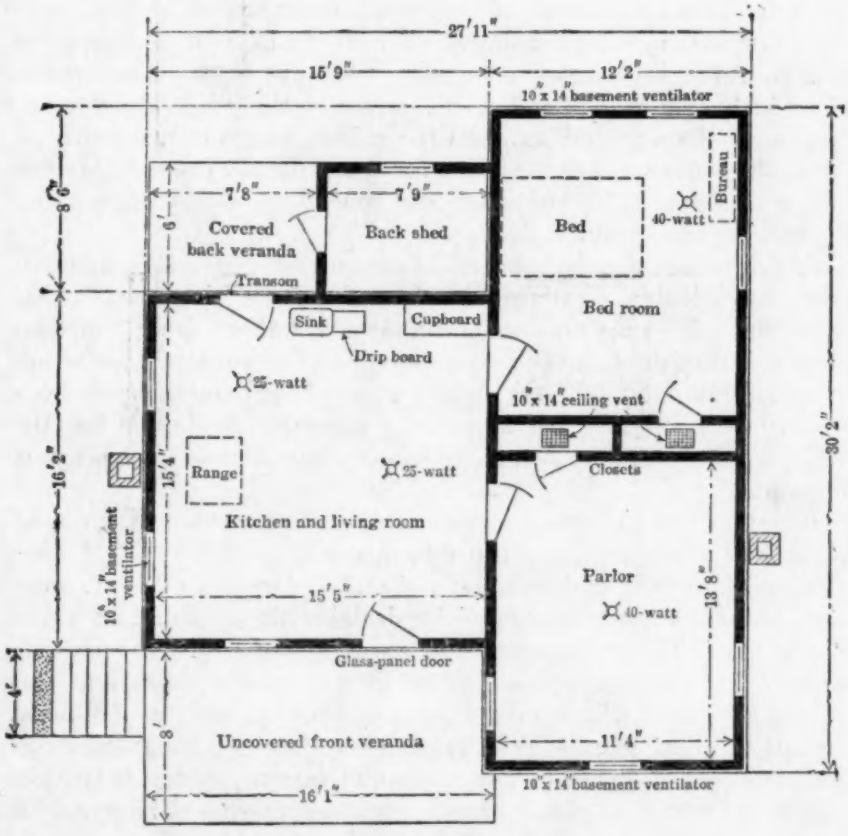


FIG. 17.—Floor plans of two-story brick house. (Bulletin 87, U. S. Bureau of Mines.)



FRONT ELEVATION



FLOOR PLAN

FIG. 18.—Plan and elevation of miner's frame cottage. (Bulletin 87, U. S. Bureau of Mines.)

the mortar is being mixed. Such walls offer many hygienic advantages over ordinary frame or brick construction in the matter of dryness, heat conservation, and safety in case of fire. Concrete construction for the entire house has proven very successful and is not only fire and rat proof, but also very durable and to a great extent vermin-proof.

The frame house is especially adapted for isolated houses, since a greater variety of design and economical decorative features can be produced and such houses can be more readily enlarged. Moreover, for hot climates, frame and other forms of wooden buildings possess the advantage that they cool off very rapidly after sunset. On account of their greater inflammability and short duration of life, frame houses can not be recommended for permanent buildings; but as long as they are extensively used, it is well to emphasize that special precautions should be taken to prevent the entrance of cold winds at the junction of the frame walls and the foundation. For this purpose a few courses of bricks in mortar should be laid upon the cellar wall just behind the wooden sill, and for the exclusion of cold air through cracks or crevices in the cornice, the construction of a 4-inch wall of brick and mortar on top of the plank which forms the top of the wall and supports the rafters, carrying it up until it meets the roof bounding, has been recommended. This wall, besides its use in keeping out cold winds and rodents, is also of some value in checking the spread of fire.

Frame houses can be rendered cooler in summer and warmer in winter by double plastering inside and by covering the outside walls, first with rough boards and a layer of Cabot's quilt, and then an exterior finish of clapboards or shingles. Cement stucco on wood, or preferably on metal laths, makes an excellent exterior finish for a frame house. It may be colored any agreeable shade and has the advantages of being noncombustible, quite durable, and independent of paint.

Bulletin 87 of the Bureau of Mines presents a number of excellent plans for frame, brick, and concrete houses.

Securing dryness of foundation and walls.—Dryness of the foundation and walls must be secured by draining the subsoil 4 to 6 feet below the cellar or basement and covering the entire floor with a layer of cement concrete 6 inches thick, rammed solid, and this should be coated with 1 inch of cement. To prevent the dampness from the soil rising in the walls by capillary attraction the foundations must be laid in concrete and hydraulic cement, and a horizontal course of slate bedded in cement should be interposed between the concrete footings and wall and another course of slate just after the foundation walls pass above the ground level. The upper damp-proof

course may consist of vitrified hollow brick. Some architects recommend damp-proof courses of tarred-felt asphalt or sheet lead.

The exterior walls of a house, whenever practicable, should be separated from the ground by an "open area," extending from the foundation upward; but where this can not be done, a "dry area" may be formed by constructing a hollow wall to the ground level, provided with the usual damp-proof courses, and, if springy, also with a subsoil drain at the bottom, at the same time protecting the wall in contact with the ground with a coat of slate embedded in cement. In localities with considerable rainfall it will be well to protect the side or rear walls of a rough brick building from driving rains with a coat of cement, mineral paint, tar, or glazed tiles. In recent years the application of a coat of waterproof paint under the plaster on the inside of the exposed wall has replaced most of the other methods.

Roofs and roofing.—A good dry roof is another important factor, because water often gets to the walls through a defective roof and the whole house becomes damp. Metallic roofs with a sufficient pitch are most commonly used and usually secure this needed protection, but as they heat very rapidly a tin roof should be painted white and a good nonconductor should intervene. There should also be an air space of 2 or 3 feet between the upper ceiling and the roof, and this space should be ventilated. All tin roofs should have flat soldered seams for a distance of 5 or 6 feet back from the gutter, so that if the gutter is stopped up the water can not back up under the seams. Slate, cement slag, and tiled roofs, when properly constructed, afford protection against dampness, fire, and heat. In rural districts wooden shingles are still extensively used, and such roofs when treated with creosote and covered with rubber or metallic paint last for about 20 years.

Floors.—Hygiene demands that the floors should be impervious to dirt, moisture, and germs, and should therefore be well seasoned, tongued and grooved, and closely matched; veranda or exposed floors should be laid in white lead. There should be a subfloor of rough pine with a double layer of Florian building paper between. In warm climates cement or "granito" floors may be advantageously used.

Ceiling space.—As a filler for the ceiling space, with a view to deadening sounds and as a protection in case of fire, special hollow bricks, dry cinders, clean, dry mortar, and peat impregnated with milk of lime have been used to good advantage. Expanded metallic lathing is preferable to wood.

Basements.—Basements are always desirable, even in small houses, for storerooms, heating plants, and laundry. The basement should

be at least 8 feet from floor to ceiling, not over one-half below ground, well lighted, and with all precautions taken to prevent odors from the kitchen, etc., passing into the upper stories.

Rooms and windows.—The rooms of the first floor should be from 10 to 10½ feet high and should be liberally supplied with windows. No room should have a borrowed light. Sleeping porches are strongly recommended. Interior finish and decorations should not be such as will serve as dust and germ traps. Cornices and projections on ceilings and walls, the moldings of door and window frames, wardrobes, carpet, and cumbersome draperies all tend to collect dust and microorganisms.

Ventilation.

The importance of adequate ventilation has been emphasized in the discussion of camps. Ventilation in residences must depend principally upon the opening of windows. In rooms heated with direct radiation the fresh air preferably should be admitted above the heads of the occupants, either by means of a register in the wall or by the insertion of a louver or swinging window pane in one of the windows, an upward direction being given to the air so that it may impinge upon the ceiling, mix with and be warmed by the heated air, fall gently into all parts of the room, and be gradually removed by means of the chimney flue or any other outlet.

Open windows are especially desirable at night, as nothing can take the place of pure fresh air in small quarters. This may be effectively accomplished without the danger of drafts by opening the windows from top and bottom. Night air, contrary to popular opinion, is not unwholesome. The windows, however, should be screened against mosquitoes and flies in the summer time. Open windows are even more essential in cold weather, because of the additional pollution from lights and fires.

There are many families who very properly insist upon having a room reserved exclusively for a sitting room or parlor, which is most commendable if the bedrooms are large enough to afford 500 cubic feet of air space for each occupant. If they are not, the sitting room or parlor should be used as a bedroom.

Unfortunately there are a number of families, who for various reasons are obliged to live, cook, and sleep in one room and for whom the question of fresh air is therefore of vital importance. Such families should not hesitate to avail themselves of the benefit of fresh air by means of open windows, especially since medical experience has demonstrated the advantages of fresh and even cold air in the treatment of consumption and pneumonia, provided the body is kept warm by sufficient bedclothes.

Temperature.

The most healthful room temperature in cold weather is between 65 and 70 degrees, as overheated rooms predispose to colds and respiratory diseases, and should be avoided. Heat should be supplied as uniformly as possible and the air of habitations, instead of being vitiated by the products of combustion, should be improved by the heating apparatus. Any heating system must also take into consideration the question of supplying sufficient humidity in the winter.

Lighting.

Electricity is in every way superior to gas and other illuminants in the lighting of houses, because there is little danger from fire, there are no products of combustion, hence no pollution of the air, nor are the temperature and humidity of the rooms affected to any perceptible extent. These advantages over gas are of special importance to the inmates of buildings where the question of fresh air and temperature play an important rôle. Next to electric light, gas, especially in connection with a Welsbach or Siemens burner, offers the best choice; in the absence of either, high-grade kerosene should be preferred over other illuminants. Acetylene gas has come into deserved prominence.

House Drainage and Plumbing.

The requisites for proper house drainage, where there is a general sewerage system, are as follows:

1. Water-closets, wash basins, bath and laundry tubs, and kitchen sinks.
2. A perpendicular system of piping known as the soil and vent pipes with which the foregoing fixtures are connected.
3. The house drain, which is a nearly horizontal pipe and connects with the sewer.

Simplicity of the drainage system is of the utmost importance; hence all the fixtures necessary for the comfort of the inmates of the house should be placed in close proximity to the soil pipe, drained and trapped separately into it. When a fixture must be placed some distance from the soil pipe, ample fall must be allowed for the connecting waste pipe. All of the plumbing should be exposed. Where possible, bathrooms should have an impermeable floor. Whenever the kitchen and pantry drains cannot be provided with a very rapid fall, the congealing of the grease is likely to obstruct the drain. To remedy this condition, the drain should be provided with a "grease interceptor" or flushed several times a week with a hot 4 per cent solution of caustic potash or soda. The soil pipe should never be less than 4 inches in diameter. Individual fixtures should be trapped

to prevent the escape of sewer gas into the rooms, but it is not necessary to have a main trap for the entire house if the plumbing is of substantial character. Where there is no such trap, the ventilation of the main sewers is promoted through the use of the vents at the top of soil pipes. Soil pipes and the general plumbing system should be tested before the house is occupied and thereafter in the event of suspicion of defect.

Rat Proofing Premises.[1]

This measure is highly desirable, both for sanitary and economic reasons, and especially should be employed in communities along the seaboard, on account of the possible introduction of bubonic plague at such ports.

Rat proofing serves the double purpose of eliminating rat harborage and protection of food supply from the depredations of rodents. In buildings used for residential purposes only it is generally sufficient to consider merely the elimination of rat harborage without any special reference to the protection of food supply. This can be accomplished in two ways, in so far as it applies to floor area; first, the elevation of the building to heights varying from 1 to 3 feet, according to the dimensions of the building, with underpinning free and the space beneath the building kept clear of loose materials; or as an alternative method, by having the foundation wall at the edge of the building closely fitting the floor and extending 2 feet into the ground.

If rat proofing is accomplished by elevation, it is especially necessary to prevent access of rats to double walls. This is accomplished by obliterating hollow space with a concrete fill or bricks extending 1 foot upward from the floor. Ordinarily this measure will suffice in the event of rodent infestation of buildings where a large supply of foodstuffs does not make for additional attraction to rats.

Buildings where foodstuffs are prepared or stored in considerable quantities, such as groceries, bakeries, meat markets, stables, and the like, require measures not only for the prevention of the harborage of rats, but likewise to prevent their temporary incursion in search of food. In this class of structures it is preferable that the floor be of concrete, protected on all sides at the edge by a wall extending 2 feet under the ground, this in order to prevent rats burrowing under the edge of the concrete. Hollow wall or ceiling space should be avoided in these structures. The walls should be of solid masonry, brick or concrete, but if of frame the entrance to the space should be protected by a brick or concrete fill extending from the floor upward 1 foot.

[1] For details of rat-proof construction see various publications of United States Public Health Service on this subject.

Additional precautions are necessary, especially in places where foodstuffs are kept, to prevent the admission of various species of climbing rats. Consequently ventilators and drains and other similar openings should be screened with durable material, preferably not less than 12-gauge wire, mesh not exceeding one-half inch. The premises should be kept free of loose material, which might serve as a harborage for rats. This especially applies to loose lumber, barrels, boxes, etc. If retained on the premises, such articles should be elevated not less than 2 feet from the ground. Plank walks are favorite harboring places for rats and should be avoided, the necessary walks being made of concrete or brick. Garbage should be carefully deposited in a water-tight can and should be kept covered, especially during the night.

Control of Other Vermin.

Not only will the types of construction above outlined prevent rats, but they will also tend to prevent other vermin. For this latter purpose, however, the interior of dwellings will have to receive extra attention. Due care should be taken in the selection of materials for interior finishing, not only to obviate breeding places for vermin, but to facilitate periodic flushing with solutions and fumigation with gases.

Where the walls and floors are of wood construction the use of an oil dressing regularly after scrubbing keeps out vermin as well as preserving the wood.

After the house is occupied special attention must be paid to the exclusion and destruction of insects, for apart from the discomfort produced, disease germs are conveyed by flies, mosquitoes, fleas, and the body louse, and probably by bedbugs and roaches.[1] Flies may carry the infections of typhoid fever, dysentery, and other intestinal diseases and possibly also pink-eye, purulent ophthalmia, poliomyelitis, anthrax, glanders, erysipelas, and other diseases. The flea from infected rats, squirrels, and other rodents may convey the germs of plague. The body louse is believed to be the chief carrier of typhus or spotted fever, and bedbugs have been incriminated in the transmission of relapsing fever, tuberculosis, and other infections. It has been proven that mosquitoes are the intermediate host of the germs of malaria and yellow fever.

[1] A. Celli of Rome in 1888 (Boll. dell. soc. Lancis. degli ospidali di Roma, May, 1888) demonstrated that the germs of tuberculosis and other disease germs may retain their vitality after passing through the intestinal tract of flies. Spillmann and Haushalter (Comptes Rendues; 105 p. 352) pointed out that flies caught while feeding upon the expectoration of a consumptive invariably contained living germs. E. Hoffmann (D. Med. Zeitung, 1888, No. 57) not only confirmed these observations, but also found the germs in the fly spots on the wall of a room occupied by a consumptive. Kober (report of the Health Officer, District of Columbia, 1895) in his investigations of a typhoid epidemic in Washington pointed out a number of house infections which he attributed to the agency of flies carrying the germs from typhoid stools and infected sources to the food and milk supply.

HOUSE CLEANING AND GENERAL CLEANLINESS.

The question of systematic house cleaning is important. Hygiene condemns all carpets and interior finishes which serve as dust and germ traps, and the object of house cleaning must primarily be to get rid of the dust and germs. Vacuum cleaners are doubtless the most efficient means for this purpose. When they are not available, sweeping may be effective. It is a good plan to open the upper windows, but to keep the doors leading into the hall closed, so that the dust may not be wafted back into the house. The dusting should always be done with a soft, damp cloth, frequently changed. A dry dusting cloth, however, may be chosen when the articles are liable to be injured. Feather dusters are useless in the inside of the house, as they do not remove the dust, but simply displace it. If the cracks in floors have been neatly filled up and the floors oiled or waxed, they can after being swept be cleaned with a damp cloth. This method is more effective than the tiresome scrubbing of unoiled floors. The kitchen, cooking, and eating utensils need special care, as unclean food and utensils are often the cause of cholera morbus and diarrheal diseases.

Every effort should be made to have clean and cool storage facilities for food, and all perishable food, especially milk for infant feeding, should be kept on ice whenever the temperature is above 50 degrees.

Poultry, pigeons, and household pets, such as dogs, cats, and parrots, ought not to be kept in the rooms, as they contaminate the air, harbor insects, and may even convey disease germs. Parrots suffer at times from a pulmonary disease, which is transmissible to man, and certain forms of tape worm, skin disease, and itch may be conveyed by dogs and cats.

There should be no accumulation of rubbish within or without the house, and the outhouses should be kept in a clean and sanitary condition.

A good housewife can not only accomplish a great deal for the health, but also for the comfort and morals of the family. General order and neatness, clean, white, washable curtains, some potted plants, and a few suitable pictures, together with a cheerful and refined atmosphere, will do much to attach husbands and sons to their homes.

As a matter of fact, much may be done to transform undesirable living quarters into healthful homes, while filth, neglect, and slovenly housekeeping often convert even structurally good houses into veritable hotbeds for disease. So, too, persons with delicate constitutions may, by attention to the laws of health, attain to a good old age, while the physical giant, by a reckless life, soon undermines his general health and goes to a premature grave.

LOCAL LEGISLATION.

In the establishment of new residence areas for industrial plants, a splendid opportunity is given for the adoption of good sanitary legislation, which may cover many of the points brought out in the above report. The advice of skilled sanitarians should be employed in drawing up such legislation. Consideration should be given to the adoption of provisions for full-time health officers for these areas or for the counties in which they are located, and the existing public-health organizations should be strengthened to cope with the new problems arising out of the present stress on industry.

In submitting the above report, your committee is aware of the fact that it must be supplemented by detailed plans and specifications where the building of a new village or industrial community is to be undertaken, but it is thought that an understanding of the underlying principles and of the recent developments in sanitary knowledge will do much to focus attention upon the subject.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

EXTRA-CANTONMENT ZONES—CASES REPORTED WEEK ENDED AUG. 31.

CAMP BEAUREGARD ZONE, LA.

	Cases.
Alexandria:	
Chicken pox	3
Dysentery, amebic	1
Gonorrhea	2
Malaria	8
Ringworm	2
Scarlet fever	1
Syphilis	1
Tuberculosis	1
Typhoid fever	1
Pineville:	
Gonorrhea	1
Typhoid fever	1
Whooping cough	7
Rural district:	
Typhoid fever	2

CAMP BOWIE ZONE, TEX.

Fort Worth:	
Chancroid	13
Diphtheria	3
Gonorrhea	255
Malaria	1
Syphilis	105
Tuberculosis	2
Typhoid fever	10

BREMERTON ZONE, WASH.

Diphtheria	2
Gonorrhea	1
Measles	1
Mumps	2
Syphilis	1
Typhoid fever	1

CAMP DEVENS ZONE, MASS.

Measles:	
Pepperell	2

CAMP DODGE ZONE, IOWA.

Des Moines:	
Gonorrhea	14
Scarlet fever	4
Smallpox	3
Syphilis	5
Tuberculosis, pulmonary	38

CAMP DONIPHAN ZONE, OKLA.

Gonorrhea:	
Lawton	5
Typhoid fever:	
Comanche County	4
Kiowa County	1

CAMP EBERTS ZONE, ARK.

	Cases.
Diphtheria:	
Lonoke, route 3	1
Wattensaw	2
Gonorrhea:	
Carlisle, route 2	4
England	2
Scotts	3
Malaria:	
Alport	1
Austin	1
Keo	5
Lonoke, route 3	1
Ward	2
Wattensaw	2
Smallpox:	
Humnoke	1
Typhoid fever:	
Lonoke, route 4	2
Wattensaw	4

CAMP FUNSTON ZONE, KANS.

Junction City:	
Whooping cough	2
Manhattan:	
Gonorrhea	1
Measles	1
Mumps	1

CAMP GORDON ZONE, GA.

Atlanta:	
Diphtheria	3
Gonorrhea	53
Malaria	3
Measles	1
Pneumonia	1
Scarlet fever	10
Septic sore throat	1
Syphilis	48
Typhoid fever	2
Tuberculosis	11
Whooping cough	3

CAMP GREENE ZONE, N. C.

Charlotte Township:	
Chancroid	1
Gonorrhea	12
Scarlet fever	4
Smallpox	1
Syphilis	10
Tuberculosis	2
Typhoid fever	7
Whooping cough	6

GULFPORT HEALTH DISTRICT, MISS.

	Cases.
Diphtheria	3
Gonorrhea	11
Malaria	22
Measles	1
Mumps	2
Pellagra	1
Pneumonia	1
Typhoid fever	5

CAMP HANCOCK ZONE, GA.

Augusta:	
Diphtheria	1
Malaria	7
Scarlet fever	1
Typhoid fever	6
Whooping cough	2

CAMP JACKSON ZONE, S. C.

Whooping cough:	
Columbia	3

CAMP JOSEPH E. JOHNSTON ZONE, FLA.

Jacksonville:	
Diphtheria	1
Gonorrhea	53
Malaria	3
Measles	1
Syphilis	47
Tuberculosis	4
Typhoid fever	2
Whooping cough	5
Ortega:	
Whooping cough	6
Panama:	
Whooping cough	1

FORT LEAVENWORTH ZONE, KANS.

Leavenworth:	
Diphtheria	2
Gonorrhea	1
Tuberculosis	1
Leavenworth County:	
Measles	1

CAMP LEWIS ZONE, WASH.

Chicken pox:	
Steilacoom Lake	3
Mumps:	
Steilacoom	1

CAMP LOGAN ZONE, TEX.

Cerebrospinal meningitis:	
Houston	1
Chancroid:	
United States Government clinic	1
Diphtheria:	
Houston	3
Gonorrhea:	
Ellington field	1
Houston	5
San Leon	1
United States Government clinic	37
Syphilis:	
Houston	3
United States Government clinic	14
Tuberculosis:	
Houston	6
Typhoid fever:	
Houston	1

CAMP M'ARTHUR ZONE, TEX.

Waco:	
Gonorrhea	12
Mumps	1
Syphilis	3
Tuberculosis	1

CAMP M'CLELLAN ZONE, ALA.

Anniston:	
Chancroid	2
Gonorrhea	14
Malaria	2
Pneumonia	1
Smallpox	1
Syphilis	1
Typhoid fever	3
Jacksonville:	
Smallpox	2
Precinct 15:	
Typhoid fever	1

FORT OGLETHORPE ZONE, GA. AND TENN.

Diphtheria:	
Chattanooga	1
Gonorrhea:	
Chattanooga	21
Syphilis:	
Chattanooga	18
Tuberculosis:	
North Chattanooga	1
Typhoid fever:	
Chattanooga	3
East Chattanooga	1
St. Elmo	1

CAMP PIKE ZONE, ARK.

Keo:	
Malaria	3
Smallpox	3
Little Rock:	
Chancroid	2
Erysipelas	1
Gonorrhea	23
Hookworm disease	1
Malaria	4
Syphilis	7
Tuberculosis	1
Scotts:	
Anthrax	1
Malaria	2

PORTSMOUTH-KITTERY SANITARY DISTRICT, N. H. AND ME.

Gonorrhea:	
Ogunquit	1
Portsmouth	7
Measles:	
Kittery	2
Scarlet fever:	
Portsmouth	1
Syphilis:	
Portsmouth	2
Whooping cough:	
Hampton	1

PORTSMOUTH AND NORFOLK COUNTY HEALTH DISTRICT, VA.

Cerbrospinal meningitis:	
Norfolk	1
Chancroid:	
Norfolk	3

PORTSMOUTH AND NORFOLK COUNTY HEALTH DISTRICT, VA.—continued.

	Cases.
Diphtheria:	
Fentress	1
Port Norfolk	1
German measles:	
Port Norfolk	1
Gonorrhea:	
Norfolk	65
Portsmouth	5
Malaria:	
Portsmouth	3
Measles:	
Norfolk County	1
Smallpox:	
Norfolk	1
Syphilis:	
Norfolk	15
Portsmouth	1
Tuberculosis:	
Portsmouth	1
Typhoid fever:	
Campostella	1
Deep Creek	1
Lafayette Park	1
Norfolk	3
Portsmouth	5
Rosemont	1
South Norfolk	2
Whooping cough:	
Larchmont	1

CAMP SEVIER ZONE, S. C.

Malaria:	
Greenville Township	1
Tuberculosis:	
Bates Township	1
Typhoid fever:	
Chick Springs Township	1
Greenville Township	3

CAMP SHELBY ZONE, MISS.

Chancroid:	
Hattiesburg	4
Gonorrhea:	
Hattiesburg	2
Near Hattiesburg	1
Hookworm disease:	
Near Hattiesburg	1
Malaria:	
Forrest County	1
Hattiesburg	8
Near Hattiesburg	1
Measles:	
Hattiesburg	5
Mumps:	
Hattiesburg	1
Pellagra:	
Forrest County	1
Pneumonia:	
Hattiesburg	1
Syphilis:	
Hattiesburg	5
Typhoid fever:	
Covington County	1
Hattiesburg	1
Whooping cough:	
Hattiesburg	1

CAMP SHERIDAN ZONE, ALA.

	Cases.
Montgomery:	
Gonorrhea	7
Syphilis	4
Typhoid fever	5
Montgomery County:	
Typhoid fever	1
United States Government clinic:	
Chancroid	4
Gonorrhea	17
Syphilis	9

CAMP SHERMAN ZONE, OHIO.

Diphtheria:	
Chillicothe	1
Gonorrhea:	
Chillicothe	1
United States Government clinic	23
Syphilis:	
United States Government clinic	2
Typhoid fever:	
Chillicothe	1
Colerain Township	1
Springfield Township	1

CAMP ZACHARY TAYLOR ZONE, KY.

Chancroid:	
United States Government clinic	1
Continued fever:	
Louisville	1
Diphtheria:	
Louisville	7
Gonorrhea:	
Louisville	2
United States Government clinic	22
Malaria:	
Jefferson County	1
Syphilis:	
Louisville	2
United States Government clinic	18
Trachoma:	
Louisville	2
Tuberculosis, pulmonary:	
Louisville	18
Typhoid fever:	
Jefferson County	3
Louisville	9
New Albany, Ind	1
Typhoid fever (suspected):	
Louisville	2
Whooping cough:	
Jefferson County	13
Louisville	4
New Albany, Ind	2

TIDEWATER HEALTH DISTRICT, VA.

Cerebrospinal meningitis:	
Phoebus	1
Chancroid:	
Newport News	1
Diphtheria:	
Newport News	4
Gonorrhea:	
Newport News	32

TIDEWATER HEALTH DISTRICT, VA.—continued.

	Cases.
Malaria:	
Lechall	2
Newport News	5
Measles:	
Hampton	1
Poliomyelitis:	
Newport News	1
Scarlet fever:	
Newport News	1
Smallpox:	
Newport News	1
Syphilis:	
Newport News	8
Typhoid fever:	
Hampton	1
Lechall	1
Newport News	5
Varioloid:	
Newport News	1
Whooping cough:	
Hampton	1
Newport News	8

CAMP TRAVIS ZONE, TEX.

San Antonio:	
Ascites	2
Gonorrhea	16
Measles	1
Mumps	1
Pellagra	1
Scarlet fever	1
Syphilis	35
Tuberculosis	11
Typhoid fever	12

CAMP UPTON ZONE, N. Y.

	Cases.
Tuberculosis:	
Patchogue	1
Typhoid fever:	
Brook Haven	1

VANCOUVER ZONE, WASH.

Gonorrhea	4

CAMP WADSWORTH ZONE, S. C.

Gonorrhea:	
Spartanburg	11
Malaria:	
Glenn Springs	1
Spartanburg	2
Spartanburg County	1
Smallpox:	
Greer	4
Tuberculosis:	
Spartanburg	1
Typhoid fever:	
Clifton Mills	2
Spartanburg	5
Whooping cough:	
Glenn Springs	1

CAMP WHEELER ZONE, GA.

Bibb County:	
Conjunctivitis	12
Typhoid fever	2
Macon:	
Diphtheria	1
Gonorrhea	4
Malaria	4
Scarlet fever	2
Typhoid fever	6
United States Government clinic:	
Gonorrhea	6
Syphilis	10

DISEASE CONDITIONS AMONG TROOPS IN THE UNITED STATES.[1]

The following data are taken from telegraphic reports received in the office of the Surgeon General, United States Army, for the week ended August 23, 1918:

Annual admission rate per 1,000 (disease only):	
All troops	933.8
Divisional camps	1,193.6
Cantonments	930.3
Departmental and other troops	786.6
Noneffective rate per 1,000 on day of report:	
All troops	36.25
Divisional camps	41.93
Noneffective rate per 1,000 on day of report—Continued.	
Cantonments	37.77
Departmental and other troops	31.10
Annual death rate per 1,000 (disease only):	
All troops	2.96
Divisional camps	2.53
Cantonments	3.56
Departmental and other troops	2.48

[1] Including Porto Rico.

Cases of special diseases reported during the week ended Aug. 23, 1918.

Camp.	Pneumonia.	Dysentery.	Malaria.	Venereal diseases.		Measles.	Meningitis.	Scarlet fever.	Deaths.	Annual admission rate per 1,000 (disease only).	Noneffective per 1,000 on day of report.
				Total.	New infections.						
Beauregard	10	1	2	56	.....	8	.....	.....	2	899.9	75.06
Bowie	.....	.....	1	44	15	.....	.....	.....	1	1,139.6	32.08
Cody	10	.....	.....	26	.....	4	.....	.....	1	405.6	16.92
Fremont	6	.....	2	41	13	2	.....	.....	.....	658.1	31.69
Greene	2	.....	.....	55	5	3	.....	.....	2	1,293.6	56.90
Greenleaf	.....	.....	2	47	2	25	.....	.....	.....	763.2	44.78
Hancock	8	.....	6	86	1	2	.....	.....	.....	1,459.4	39.01
Kearny	.....	.....	.....	50	1	.....	.....	.....	.....	1,365.7	85.17
Logan	.....	.....	6	48	14	.....	.....	.....	.....	1,475.8	40.26
MacArthur	18	.....	18	24	7	.....	.....	.....	.....	1,051.2	56.59
McClellan	5	.....	2	80	13	14	1	.....	.....	1,513.2	42.15
Sevier	1	.....	5	22	1	20	1	.....	1	885.6	65.36
Shelby	13	2	18	48	8	27	1	.....	3	1,437.7	52.48
Sheridan	11	.....	.....	374	9	29	.....	.....	2	2,440.2	59.28
Wadsworth	7	.....	3	625	6	2	.....	.....	3	1,705.9	38.90
Wheeler	51	.....	.....	53	2	.....	2	.....	4	1,034.8	27.73
Syracuse	.....	.....	.....	296	.....	.....	.....	.....	1	1,057.6	26.33
Custer	2	.....	.....	376	4	.....	.....	.....	3	1,076.1	12.45
Devens	16	.....	1	111	81	9	.....	.....	1	593.0	33.81
Dix	2	2	3	50	3	17	.....	1	1	860.2	29.34
Dodge	10	1	2	489	.....	17	1	1	5	2,077.7	67.98
Funston	8	.....	.....	6	.....	20	.....	1	2	515.5	11.08
Gordon	47	.....	6	102	.....	62	.....	.....	11	1,738.0	66.28
Grant	6	.....	1	32	.....	5	.....	.....	4	280.1	12.33
Jackson	.....	.....	1	134	.....	19	.....	.....	2	929.1	58.77
J. E. Johnston	5	.....	8	32	25	25	.....	.....	.....	1,071.9	30.61
Las Casas	4	.....	7	5	.....	43	.....	.....	4	1,214.7	51.36
Lee	3	.....	.....	50	.....	56	.....	.....	2	650.9	47.49
Lewis	5	.....	2	104	7	3	.....	3	2	1,130.4	46.94
Meade	3	2	2	543	5	21	.....	.....	.....	694.6	19.50
Pike	17	.....	9	53	1	126	.....	.....	7	1,105.9	58.86
Sherman	6	.....	.....	69	.....	5	.....	.....	1	918.6	39.15
Taylor	15	.....	.....	42	6	66	.....	.....	3	726.5	38.11
Travis	19	1	4	99	9	9	.....	1	3	1,402.5	47.43
Upton	5	.....	.....	246	3	7	.....	.....	2	890.4	41.20
Northeastern Department	.....	.....	1	43	12	1	.....	.....	2	652.5	22.79
Eastern Department	3	.....	13	258	29	17	.....	.....	4	627.0	18.67
Southeastern Department	2	.....	7	187	45	23	.....	.....	2	1,408.8	51.14
Central Department	5	.....	1	89	38	3	.....	1	2	904.2	32.10
Southern Department	3	26	5	179	52	4	.....	.....	4	858.6	32.81
Western Department	2	.....	.....	58	16	6	.....	.....	1	659.0	20.11
Aviation camps	2	.....	6	122	.....	11	.....	1	5	744.3	29.04
Ports of embarkation:											
Hoboken	7	.....	2	330	42	56	.....	.....	3	1,169.0	61.44
Newport News	8	3	2	164	9	17	.....	.....	2	1,137.9	60.46
Alcatraz	.....	.....	.....	.....	.....	.....	.....	.....	.....	467.0	20.95
Leavenworth	.....	.....	.....	2	.....	.....	.....	.....	1	1,199.2	35.87
Columbus Barracks	.....	.....	.....	3	2	.....	.....	.....	1	835.8	40.75
Jefferson Barracks	4	.....	4	68	5	10	.....	1	1	1,949.5	105.0
Logan, Fort	.....	.....	.....	9	.....	.....	.....	.....	.....	1,140.7	59.39
McDowell, Fort	.....	.....	.....	13	3	.....	.....	.....	.....	1,328.7	97.37
Slocum, Fort	1	.....	.....	11	.....	1	.....	.....	.....	855.8	53.34
Thomas, Fort	.....	.....	.....	2	.....	.....	.....	.....	.....	1,058.7	37.12
Arsenals	.....	.....	.....	6	2	10	.....	.....	1	718.1	21.33
West Point	.....	.....	.....	.....	.....	.....	.....	.....	.....	253.0	12.43
Miscellaneous small stations	.....	.....	6	1	.....	.....	.....	.....	.....	848.1	14.52
General hospitals	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....
Total	352	38	158	6,063	496	806	6	10	106	.....	.....

Annual rate per 1,000 for special diseases.

Disease.	All troops in United States.[1]	Departmental and other troops.[1]	Divisional camps.[1]	Cantonments.[1]	Expeditionary forces.[2]
Pneumonia	11.60	3.40	22.53	13.12	6.48
Dysentery	1.25	2.67	.48	.45	2.72
Malaria	5.20	4.32	10.31	3.49	.74
Venereal	199.8	142.1	313.4	192.9	20.11
Paratyphoid					.12
Typhoid	.43	.46	.32	.45	.70
Measles	26.56	14.63	21.58	38.76	6.48
Meningitis	.20		.79	.07	.78
Scarlet fever	.33	.27		.53	.91

[1] Week ended Aug. 23, 1918. [2] Week ended Aug. 15, 1918.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Aug. 31, 1918.

Alabama.—Typhoid fever: By counties—Autauga 1, Choctaw 2, Colbert 8, Greene 2, Jefferson 48, Lauderdale 3, Limestone 6, Mobile 4, Russell 1, Tallapoosa 2, Tuscaloosa 4, Walker 2, Washington 1; total 84. Malaria: By counties—Autauga 2, Bibb 2, Choctaw 2, Colbert 12, Greene 74, Jackson 1, Jefferson 11, Lauderdale 4, Mobile 2, Russell 1, Tuscaloosa 5, Walker 2; total 118. Smallpox: State 4. Scarlet fever: State 19. Diphtheria: State 19.

Connecticut.—Poliomyelitis: Hartford 1, West Hartford 1, Newington 1. Typhoid fever: Total 27.

Illinois.—Diphtheria: Seventy-four, of which in Chicago 50, Urbana 4, Chicago Heights 3, East St. Louis 3. Scarlet fever: Twenty-two, of which in Chicago 12. Smallpox: Ten. Meningitis: Mill Shoals 1. Poliomyelitis: Twenty-one, 1 each Pleasant Valley Township (Jo Daviess County), Aurora, Oswego, Winnetka, Watseka, De Kalb, Sandwich, Sandwich Township (Dekalb County), Gillespie, East St. Louis, Bluff Springs precinct (Cass County), Brelton Township (Ford County), Chicago 7, Rockford 2.

Kansas.—Poliomyelitis: By cities—Hoisington 1, Ellis 2 cases and 1 death. State total: Smallpox 21, typhoid fever 97.

Reported by mail for preceding week (ended Aug. 24):

Cancer	1	Measles	7
Cerebrospinal meningitis	1	Mumps	5
Chancroid	1	Poliomyelitis	3
Chicken pox	1	Scarlet fever	13
Cholera infantum	1	Smallpox	8
Diphtheria	5	Syphilis	6
Dysentery	1	Trachoma	2
Erysipelas	1	Tuberculosis	37
German measles	2	Typhoid fever	74
Gonococcus infection	39	Whooping cough	25
Malaria	1		

Louisiana.—Cerebrospinal meningitis 1, typhoid fever 49, diphtheria 49.

Massachusetts.—Unusual prevalence. Typhoid fever: Marlboro 8, Southbridge 7, Athol 3. Dysentery: Dartmouth, 6.

Minnesota.—Smallpox (new foci): Martin County, Westford Township; Ottertail County, Otto Township; Wright County, Frank Township; each 1 case. Seven poliomyelitis and 2 cerebrospinal meningitis cases reported since August 26.

New York.—Smallpox: Cheektowaga 1. Diphtheria: Fifty-three, of which in Buffalo 13. Scarlet fever: Fifty-five, of which in Binghamton 11, institution outbreak. Typhoid fever: Sixty-nine, of which in Watertown 13—well water; Oneida County 8—milk. Report is exclusive of New York City.

Ohio.—Typhoid fever: Marion 10, Ashland 4. Pellagra: Newark Township (Licking County) 1.

Vermont.—Poliomyelitis: Burlington 1, Bartonsville 1. Typhoid fever: Winooski 25 cases, milk-borne, caused by carrier.

Virginia.—One case poliomyelitis, Accomac County; Allegheny County 1, 6 cases smallpox, Nottoway County.

CEREBROSPINAL MENINGITIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Case.		Case.
Camp Logan zone, Tex	1	Tidewater health district, Va	1

State Reports for July, 1918.

Place.	New cases reported.	Place.	New cases reported.
California:		Mississippi—Continued.	
Alameda County—		Carroll County	1
Oakland	1	Total	2
Contra Costa County—			
Richmond	1	Pennsylvania:	
Los Angeles County—		Allegheny County	12
Los Angeles	6	Cambria County	1
San Francisco	5	Clearfield County	1
San Joaquin County	1	Dauphin County	1
Tracy	1	Delaware County	1
San Diego County	1	Lackawanna County	1
Sonoma County—		Luzerne County	1
Healdsburg	1	Northampton County	2
		Northumberland County	1
Total	17	Philadelphia County	5
		Westmoreland County	2
Mississippi:			
Bolivar County	1	Total	28

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Altoona, Pa	1		Newark, N. J	2	
Baltimore, Md	1	1	Newburyport, Mass	1	1
Chicago, Ill	3	3	New York, N. Y	10	4
Cincinnati, Ohio	1		Oakland, Cal	1	
Cleveland, Ohio	1	1	Philadelphia, Pa	1	3
Elmira, N. Y	1		Pittsfield, Mass	1	
Kansas City, Mo		1	St. Louis, Mo	1	3
Los Angeles, Cal	2		San Francisco, Cal	3	
Louisville, Ky	1	1	San Jose, Cal	1	
Lynn, Mass	1	1	Springfield, Mass	1	
Milwaukee, Wis	1	1	Stockton, Cal		1
Missoula, Mont		1	Troy, N. Y	1	
Moline, Ill		1	Youngstown, Ohio	1	

CHANCROID.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	13	Camp Shelby zone, Miss	4
Camp Greene zone, N. C	1	Camp Sheridan zone, Ala	4
Camp Logan zone, Tex	1	Camp Zachary Taylor zone, Ky	1
Camp McClellan zone, Ala	2	Tidewater health district, Va	1
Camp Pike zone, Ark	2		

DIPHTHERIA.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	3	Fort Leavenworth zone, Kans	2
Bremerton zone, Wash	2	Camp Logan zone, Tex	3
Camp Eberts zone, Ark	3	Fort Oglethorpe zone, Ga. and Tenn	1
Camp Gordon zone, Ga	2	Camp Sherman zone, Ohio	1
Gulfport health district, Miss	3	Camp Zachary Taylor zone, Ky	7
Camp Hancock zone, Ga	1	Tidewater health district, Va	4
Camp Joseph E. Johnston zone, Fla	1	Camp Wheeler zone, Ga	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1525.

ERYSIPELAS.

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Buffalo, N. Y	3	1	New York, N. Y	.....	2
Chicago, Ill	3	.....	Oakland, Cal	1	.....
Detroit, Mich	1	.....	Palestine, Tex	1	.....
Los Angeles, Cal	1	.....	Pasadena, Cal	1	.....
Marquette, Mich	1	.....	Philadelphia, Pa	1	.....
Milwaukee, Wis	1	.....	Portland, Me	.....	1
Minneapolis, Minn	2	.....	St. Louis, Mo	4	.....
Morgantown, W. Va	1	.....	San Diego, Cal	1	.....
Newark, N. J	3	.....			

GONORRHEA.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	3	Camp McClellan zone, Ala	14
Camp Bowie zone, Tex	255	Fort Oglethorpe zone, Ga. and Tenn	21
Bremerton zone, Wash	1	Camp Pike zone, Ark	23
Camp Dodge zone, Iowa	14	Portsmouth-Kittery sanitary district, N. H. and Me	8
Camp Doniphan zone, Okla	5	Camp Shelby zone, Miss	3
Camp Eberts zone, Ark	9	Camp Sheridan zone, Ala	24
Camp Funston zone, Kans	1	Camp Sherman zone, Ohio	24
Camp Gordon zone, Ga	15	Camp Zachary Taylor zone, Ky	24
Camp Greene zone, N. C	12	Tidewater health district, Va	32
Gulfport health district, Miss	11	Camp Travis zone, Tex	16
Camp Joseph E. Johnston zone, Fla	53	Vancouver zone, Wash	4
Fort Leavenworth, zone, Kans	1	Camp Wadsworth zone, S. C	11
Camp Logan zone, Tex	44	Camp Wheeler zone, Ga	10
Camp MacArthur zone, Tex	12		

LEPROSY.

California—Oakland.

During the month of July, 1918, two cases of leprosy occurred at Oakland, Cal., one being in L. B., native of China, male, aged 29 years, who had previously lived in San Francisco and had been in

the United States for seven years. The other case was in C. W., native of Hawaiian Islands, male, aged 13 years, had previously lived in Rio Vista and had been in the United States for seven years.

MALARIA.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	8	Camp Pike zone, Ark	9
Camp Bowie zone, Tex	1	Camp Sevier zone, S. C	1
Camp Eberts zone, Ark	12	Camp Shelby zone, Miss	10
Camp Gordon zone, Ga	1	Camp Zachary Taylor zone, Ky	1
Gulfport health district, Miss	22	Tidewater health district, Va	7
Camp Hancock zone, Ga	7	Camp Wadsworth zone, S. C	4
Camp Joseph E. Johnston zone, Fla	3	Camp Wheeler zone, Ga	4
Camp McClellan zone, Ala	2		

State Reports for July, 1918.

State.	New cases reported.	State.	New cases reported.
California:		Mississippi:	
Alameda County—		Adams County	42
Berkeley	1	Alcorn County	105
Alameda	1	Amite County	115
Amador County—		Attala County	123
Sutter Creek	5	Benton County	40
Butte County	22	Bolivar County	1,300
Chico	7	Calhoun County	119
Calaveras County	17	Carroll County	180
Angels Camp	3	Chickasaw County	71
Colusa County	4	Choctaw County	112
Fresno County—	1	Claiborne County	88
Clovis		Clay County	128
Firebaugh	2	Coahoma County	937
Glenn County	2	Copiah County	203
Orland	3	Covington County	167
Willows	3	De Soto County	151
Kern County	7	Forrest County	260
Kings County—		Franklin County	122
Corcoran	1	George County	35
Lemoore	3	Greene County	84
Los Angeles County—		Grenada County	44
Long Beach	2	Hancock County	130
Whittier	1	Harrison County	105
Placer County	1	Hinds County	325
Auburn	3	Holmes County	617
Lincoln	3	Issaquena County	75
San Diego County	4	Itawamba County	76
Sacramento County	3	Jackson County	91
Sacramento	1	Jasper County	87
San Francisco	5	Jefferson County	120
San Joaquin County	4	Jefferson Davis County	87
Stockton	4	Jones County	164
Santa Cruz County—		Kemper County	136
Watsonville	1	Lafayette County	107
San Mateo County	1	Lamar County	118
Shasta County—		Lauderdale County	50
Redding	2	Lawrence County	226
Tehama County—		Leake County	129
Tehama City	1	Lee County	322
Solano County	4	Leflore County	839
Benicia	8	Lincoln County	100
Vacaville	4	Lowndes County	136
Sutter County	3	Madison County	124
Solano County	1	Marion County	246
Tulare County	2	Marshall County	103
Visalia	1	Monroe County	141
Yolo County	5	Montgomery County	212
Woodland	1	Neshoba County	57
		Newton County	123
Total	147	Noxubee County	56
		Oktibbeha County	148

MALARIA—Continued.

State Reports for July, 1918—Continued.

State.	New cases reported.
Mississippi—Continued.	
Panola County	311
Pearl River County	30
Perry County	139
Pike County	47
Pontotoc County	260
Prentiss County	96
Quitman County	659
Rankin County	87
Scott County	118
Sharkey County	223
Simpson County	142
Smith County	30
Stone County	43
Sunflower County	807
Tallahatchie County	490
Tate County	283
Tippah County	75
Tishomingo County	159
Tunica County	442
Union County	116
Walthall County	37
Warren County	377
Washington County	307
Wayne County	61
Webster County	42
Wilkinson County	80
Winston County	261
Yalobusha County	137
Yazoo County	689
Total	16,214
Pennsylvania:	
Mercer County	1

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.
Atlanta, Ga	1	
Augusta, Ga	6	
Birmingham, Ala	2	
Coffeyville, Kans	1	
Dayton, Ohio		1
Hartford, Conn	1	
Hattiesburg, Miss	2	
Little Rock, Ark	12	
Marshall, Tex	2	
Mobile, Ala		1
Montgomery, Ala	2	
Newark, N. J	1	
New Orleans, La	1	1
Norfolk, Va		1
Oklahoma City, Okla		1
Orange, N. J	1	
Palestine, Tex	7	
Passaic, N. J	2	
Petersburg, Va	3	
San Francisco, Cal	2	
Sedalia, Mo	3	
Spartanburg, S. C	3	
Waco, Tex	1	1

MEASLES.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.
Bremerton zone, Wash	1
Camp Devens zone, Mass	2
Camp Funston zone, Kans	1
Gulfport health district, Miss	1
Camp Joseph E. Johnston zone, Fla	1
Fort Leavenworth zone, Kans	1
Portsmouth-Kittery sanitary district, N. H. and Me	2
Camp Shelby zone, Miss	5
Tidewater health district, Va	1
Camp Travis zone, Tex	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1525.

PELLAGRA.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.
Gulfport health district, Miss	1
Camp Shelby zone, Miss	1
Camp Travis zone, Tex	1

PELLAGRA—Continued.

State Reports for July, 1918.

State.	New cases reported.
California:	
Los Angeles County—	
Los Angeles	2
San Bernardino County—	
San Bernardino	1
Total	3
Mississippi:	
Adams County	4
Alcorn County	11
Amite County	3
Attala County	5
Benton County	1
Bolivar County	139
Calhoun County	5
Carroll County	4
Chickasaw County	16
Choctaw County	2
Claiborne County	3
Clay County	8
Coahoma County	108
Copiah County	22
Covington County	8
De Soto County	30
Forrest County	12
Franklin County	2
George County	6
Greene County	3
Harrison County	15
Hinds County	36
Holmes County	12
Issaquena County	2
Itawamba County	3
Jackson County	6
Jasper County	3
Jefferson County	2
Jefferson Davis County	10
Jones County	22
Kemper County	6
Lafayette County	1
Lamar County	10
Lawrence County	26
Leake County	7
Lee County	24
Leflore County	16
Lincoln County	24
Lowndes County	3
Madison County	24
Marshall County	7
Monroe County	8
Montgomery County	11
Newton County	9
Noxubee County	9
Oktibbeha County	8
Panola County	7
Pearl River County	10
Perry County	10
Pike County	3
Pontotoc County	9
Prentiss County	8
Quitman County	24
Rankin County	6
Scott County	17
Sharkey County	21
Simpson County	4
Stone County	4
Sunflower County	50
Tallahatchie County	72
Tate County	13
Tippah County	3
Tishomingo County	25
Tunica County	67
Union County	7
Walthall County	6
Warren County	15
Washington County	37
Wayne County	1
Webster County	8
Wilkinson County	1
Winston County	5
Yalobusha County	3
Yazoo County	36
Total	1,168

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.
Atlanta, Ga		1
Augusta, Ga	2	
Baltimore, Md	1	
Birmingham, Ala	5	2
Boston, Mass	2	
Charleston, S. C		3
Charlotte, N. C		2
Dallas, Tex	1	3
Durham, N. C		1
Greensboro, N. C		1
Greenville, S. C		1
Lexington, Ky		1
Los Angeles, Cal	1	
Lynchburg, Va		1
Marshall, Tex	1	
Mobile, Ala		1
Montgomery, Ala		2
Nashville, Tenn	3	1
New Orleans, La	2	2
Oklahoma City, Okla		1
Omaha, Nebr		1
Petersburg, Va		1
Raleigh, N. C		1
San Angelo, Tex		1

PNEUMONIA.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.
Gulfport health district, Miss	1
Camp McClellan zone, Ala	1
Camp Shelby zone, Miss	1

PNEUMONIA—Continued.

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Asbury Park, N. J.	1		Kansas City, Kans.	1	
Atlanta, Ga.	1	5	Lackawanna, N. Y.	3	
Atlantic City, N. J.	1		Little Rock, Ark.	2	
Baltimore, Md.	1	3	Los Angeles, Cal.	3	5
Binghamton, N. Y.	1		Lyon, Mass.	2	1
Boston, Mass.	3	3	Newark, N. J.	7	2
Burlington, Vt.	1	1	Oak Park, Ill.	1	
Chicago, Ill.	23	19	Palestine, Tex.	1	
Cleveland, Ohio.	9	10	Peabody, Mass.	1	
Corsicana, Tex.	1	1	Philadelphia, Pa.	16	9
Detroit, Mich.	1	5	Pontiac, Mich.	1	1
Fall River, Mass.	1	2	San Francisco, Cal.	7	3
Hattiesburg, Miss.	1		Tacoma, Wash.	2	
Holland, Mich.	1	1	Yonkers, N. Y.	1	1
Kalamazoo, Mich.	1	1			

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for July, 1918.

State.	New cases reported.	State.	New cases reported.
California:		Pennsylvania—Continued.	
Los Angeles County	3	Armstrong County	1
Los Angeles	2	Beaver County	4
Total	5	Cambria County	2
		Clinton County	1
Mississippi:		Franklin County	1
Choctaw County	1	Indiana County	4
Jasper County	1	Jefferson County	1
Kemper County	1	Lackawanna County	1
Newton County	1	Lycoming County	1
Quitman County	1	Mercer County	2
Tate County	4	Philadelphia County	2
Washington County	3	Somerset County	1
Total	12	Venango County	2
		Westmoreland County	1
Pennsylvania:		Total	40
Adams County	1		
Allegheny County	15		

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.	1		Milwaukee, Wis.	1	1
Chambersburg, Pa.	1		New Bedford, Mass.	1	
Chicago, Ill.	5	2	New Britain, Conn.	2	
Cleveland, Ohio.	1		New Castle, Pa.	1	
Columbus, Ohio.	1		New York, N. Y.	8	
Dubuque, Iowa.	1		Philadelphia, Pa.		1
Hartford, Conn.	3		Pittsburgh, Pa.	6	
Kankakee, Ill.	3		Providence, R. I.	1	
Kenosha, Wis.	2	1	St. Louis, Mo.	2	
La Crosse, Wis.	2		Scranton, Pa.	1	
McKeesport, Pa.	1				

RABIES IN ANIMALS.

City Reports for Week Ended Aug. 17, 1918.

During the week ended August 17, 1918, rabies in animals was reported at East Orange, N. J., one case, and at Louisville, Ky., three cases.

SCARLET FEVER.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	1	Portsmouth-Kittery sanitary district, N. H. and Me	1
Camp Dodge zone, Iowa	4	Tidewater health district, Va	1
Camp Gordon zone, Ga	2	Camp Travis zone, Tex	1
Camp Greene zone, N. C	4	Camp Wheeler zone, Ga	2
Camp Hancock zone, Ga	1		

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1525.

SMALLPOX.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Dodge zone, Iowa	3	Camp Pike zone, Ark	3
Camp Eberts zone, Ark	1	Tidewater health district, Va	1
Camp Greene zone, N. C	1	Camp Wadsworth zone, S. C	4
Camp McClellan zone, Ala	3		

California Report for July, 1918—Vaccination Histories.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
California:						
Alameda County—						
Oakland	4		1		3	
Calaveras County	1				1	
Contra Costa County—						
Richmond	1				1	
Martinez	2				2	
Fresno County	4			2	2	
Fresno	1				1	
Imperial County	1				1	
Brawley	1				1	
Kern County	1				1	
Taft	1		1			
Kings County—						
Corcoran	4				4	
Los Angeles County	1				1	
Long Beach	1				1	
Los Angeles	5			1	4	
Inglewood	1				1	
Madera County—						
Madera City	1				1	
Merced County	1				1	
Orange County	2				2	
Santa Ana	12				12	
Riverside County	1				1	
Riverside	3				3	
San Bernardino County—						
Ontario	1				1	
San Francisco	4			3	1	
San Joaquin County	7				7	
Stockton	8				8	
Santa Clara County	10				10	
San Jose	6				6	
Los Gatos	1				1	
Siskiyou County—						
Sisson	1				1	
Stanislaus County—						
Modesto	1			1		
Turlock	1				1	
Tehama County	2				2	
Tulare County	2				2	
Exeter	1				1	
Porterville	2				2	
Tuolumne County	1				1	
Total	97		2	7	88	

SMALLPOX—Continued.

State Reports for July, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Mississippi:			Pennsylvania:		
Attala County	10		Allegheny County	11	
Bolivar County	7		Blair County	2	
Carroll County	5		Cambria County	6	
Chickasaw County	3		Clarion County	1	
Clay County	4		Clearfield County	1	
Coahoma County	6		Crawford County	2	
Greene County	1		Cumberland County	1	
Holmes County	7		Elk County	5	
Jones County	2		Erie County	2	
Leflore County	3		Franklin County	6	
Madison County	1		Indiana County	1	
Panola County	13		Lawrence County	2	
Pontotoc County	1		Mercer County	2	
Sunflower County	3		Philadelphia County	4	
Tallahatchie County	2		Potter County	3	
Tate County	4		Somerset County	1	
Tunica County	6		Warren County	1	
Warren County	1		Total	51	
Washington County	2				
Wayne County	1				
Yazoo County	8				
Total	99				

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	4		Oklahoma City, Okla	2	
Canton, Ill	1		Omaha, Nebr	6	
Charleston, W. Va	3		Oshkosh, Wis	1	
Council Bluffs, Iowa	4		Pontiac, Mich	1	
Covington, Ky	1		Portland, Oreg	5	
Denver, Colo	7		St. Joseph, Mo	1	
Dubuque, Iowa	1		St. Louis, Mo	1	
El Paso, Tex	1		Salt Lake City, Utah	16	
Fort Worth, Tex	1		San Francisco, Cal	1	
Green Bay, Wis	1		Santa Ana, Cal	3	
Hammond, Ind	2		Seattle, Wash	7	
Indianapolis, Ind	1		Sedalia, Mo	1	
Iola, Kans	2		Spokane, Wash	6	
Jacksonville, Ill	1		Stockton, Cal	1	
Jamestown, N. Y	1		Superior, Wis	1	
Kansas City, Mo	2		Tacoma, Wash	1	
Lincoln, Nebr	1		Toledo, Ohio	1	
Louisville, Ky	2		Walla Walla, Wash	1	
Milwaukee, Wis	1		Washington, D. C	1	
Minneapolis, Minn	2		Wichita, Kans	3	
Missoula, Mont	1		Youngstown, Ohio	1	
Newark, N. J	1				

SYPHILIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	1	Camp Pike zone, Ark	7
Camp Bowie zone, Tex	105	Portsmouth-Kittery sanitary district, N. H. and Me	2
Bremerton zone, Wash	1	Camp Shelby zone, Miss	5
Camp Dodge zone, Iowa	5	Camp Sheridan zone, Ala	13
Camp Gordon zone, Ga	14	Camp Sherman zone, Ohio	2
Camp Greene zone, N. C	10	Camp Zachary Taylor zone, Ky	20
Camp Joseph E. Johnston zone, Fla	47	Tidewater health district, Va	8
Camp Logan zone, Tex	17	Camp Travis zone, Tex	35
Camp MacArthur zone, Tex	3	Camp Wheeler zone, Ga	10
Camp McClellan zone, Ala	1		
Fort Oglethorpe zone, Ga. and Tenn	18		

TUBERCULOSIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	1	Camp MacArthur zone, Tex	1
Camp Bowie zone, Tex	2	Fort Oglethorpe zone, Ga. and Tenn	1
Camp Dodge zone, Iowa	38	Camp Pike zone, Ark	1
Camp Gordon zone, Ga	1	Camp Sevier zone, S. C	1
Camp Greene zone, N. C	2	Camp Zachary Taylor zone, Ky	18
Camp Joseph E. Johnston zone, Fla	4	Camp Travis zone, Tex	11
Fort Leavenworth zone, Kans	1	Camp Upton zone, N. Y	1
Camp Logan zone, Tex	6	Camp Wadsworth zone, S. C	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1525.

TYPHOID FEVER.

Cases Reported in Extra-Cantonment Zones, Week Ended Aug. 31, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	4	Fort Oglethorpe zone, Ga. and Tenn	5
Camp Bowie zone, Tex	10	Camp Sevier zone, S. C	4
Bremerton zone, Wash	1	Camp Shelby zone, Miss	2
Camp Doniphan zone, Okla	5	Camp Sheridan zone, Ala	6
Camp Eberts zone, Ark	6	Camp Sherman zone, Ohio	3
Camp Gordon zone, Ga	1	Camp Zachary Taylor zone, Ky	13
Camp Greene zone, N. C	7	Tidewater health district, Va	7
Gulfport health district, Miss	5	Camp Travis zone, Tex	12
Camp Hancock zone, Ga	6	Camp Upton zone, N. Y	1
Camp Joseph E. Johnston zone, Fla	2	Camp Wadsworth zone, S. C	7
Camp Logan zone, Tex	1	Camp Wheeler zone, Ga	8
Camp McClellan zone, Ala	4		

State Reports for July, 1918.

Place.	New cases reported.	Place.	New cases reported.
California:		California—Continued.	
Alameda County—		San Francisco	17
Oakland	9	San Joaquin County	1
Butte County—		Stockton	6
Chico	3	San Luis Obispo County—	
Contra Costa County	3	San Luis Obispo	1
Hercules	4	San Mateo County	1
Pittsburg	1	Santa Clara County	1
Fresno County—		Gilroy	1
Fresno City	5	Santa Cruz County	2
Calaveras County	1	Santa Barbara County—	
Imperial County	5	Santa Barbara	4
Calexico	2	Sierra County—	
Kern County	3	Loyalton	3
Taft	2	Siskiyou County—	
Kings County	2	Dunsmuir	1
Hanford	1	Tehama County	1
Los Angeles County	3	Solano County	1
Burbank	1	Sonoma County	1
Glendora	6	Santa Rosa	1
Los Angeles	20	Stanislaus County—	
Mendocino County	1	Modesto	1
Humboldt County	1	Tulare County	1
Merced County	6	Porterville	1
Monterey County	1	Tuolumne County	2
Orange County	2	Ventura County	1
Huntington Beach	1	Yuba County—	
Placer County—		Marysville	2
Auburn	1	Santa Clara County—	
Riverside County	2	San Jose	1
Blythe	4		
Riverside	5	Total	168
Sacramento County	8		
Sacramento	2	Mississippi:	
San Benito County	1	Adams County	7
San Bernardino County	3	Alcorn County	14
Redlands	4	Amite County	4
Upland	3	Attala County	7
San Diego County—		Benton County	7
Escondido	1	Bolivar County	107
San Diego	2	Calhoun County	18

TYPHOID FEVER—Continued.

State Reports for July, 1918—Continued.

Place.	New cases reported.
Mississippi—Continued.	
Carroll County	8
Chickasaw County	4
Choctaw County	6
Claiborne County	2
Clay County	3
Coahoma County	28
Copiah County	33
Covington County	1
De Soto County	37
Forrest County	12
Franklin County	21
Greene County	1
Grenada County	4
Hancock County	3
Harrison County	24
Hinds County	35
Holmes County	5
Issaquena County	1
Itawamba County	2
Jackson County	15
Jasper County	7
Jefferson County	2
Jefferson Davis County	3
Jones County	12
Kemper County	1
Lafayette County	13
Lamar County	10
Lauderdale County	11
Lawrence County	24
Leake County	15
Lee County	9
Leflore County	21
Lincoln County	9
Lowndes County	4
Madison County	27
Marion County	9
Marshall County	12
Monroe County	13
Montgomery County	12
Neshoba County	1
Newton County	17
Noxubee County	1
Oktibbeha County	10
Panola County	46
Perry County	3
Pike County	21
Pontotoc County	23
Prentiss County	25
Quitman County	2
Rankin County	9
Scott County	18
Sharkey County	4
Simpson County	58
Stone County	6
Sunflower County	41
Tallahatchie County	34
Tate County	25
Tippah County	12
Tishomingo County	10
Tunica County	4
Union County	16
Walthall County	25
Warren County	10
Washington County	25
Wayne County	1
Mississippi—Continued.	
Webster County	3
Wilkinson County	2
Winston County	10
Yalobusha County	10
Yazoo County	20
Total	1,114
Pennsylvania:	
Adams County	1
Allegheny County	48
Armstrong County	9
Beaver County	1
Bedford County	3
Berks County	7
Blair County	14
Bucks County	3
Butler County	7
Cambria County	11
Carbon County	2
Chester County	3
Clearfield County	1
Clinton County	1
Columbia County	4
Crawford County	1
Cumberland County	2
Dauphin County	5
Delaware County	4
Erie County	3
Fayette County	18
Franklin County	3
Greene County	1
Huntingdon County	5
Indiana County	7
Jefferson County	7
Juniata County	2
Lackawanna County	4
Lancaster County	2
Lawrence County	10
Lebanon County	2
Lehigh County	9
Luzerne County	8
McKean County	1
Mercer County	3
Mifflin County	1
Montgomery County	11
Montour County	2
Northampton County	5
Perry County	1
Philadelphia County	46
Potter County	1
Schuylkill County	5
Snyder County	3
Somerset County	10
Tioga County	3
Venango County	1
Warren County	1
Washington County	11
Wayne County	2
Westmoreland County	7
Wyoming County	1
York County	13
Total	336

City Reports for Week Ended Aug. 17, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa.	2		Baltimore, Md.	19	
Alton, Ill.	1		Bethlehem, Pa.	1	
Altoona, Pa.	2		Birmingham, Ala.	10	2
Anniston, Ala.	4		Bluefield, W. Va.	2	
Atlanta, Ga.	12		Boston, Mass.	4	
Atlantic City, N. J.	1		Buffalo, N. Y.	3	
Augusta, Ga.	1		Cambridge, Mass.	1	

TYPHOID FEVER—Continued.

City Reports for Week Ended Aug. 17, 1918—Continued.

Place.	Cases.	Deaths.
Charleston, S. C.	6	
Charleston, W. Va.	9	1
Charlotte, N. C.	10	1
Chelsea, Mass.	1	
Chicago, Ill.	10	1
Cincinnati, Ohio.	2	
Cleveland, Ohio.	5	1
Coatesville, Pa.	3	
Coffeyville, Kans.	1	
Columbus, Ohio.	4	1
Corpus Christi, Tex.	1	
Corsicana, Tex.	1	
Covington, Ky.	1	
Dallas, Tex.	5	
Dayton, Ohio.	1	
Denver, Colo.	5	
Detroit, Mich.	3	1
Du Bois, Pa.	1	
Duluth, Minn.	1	
Durham, N. C.	1	
Elmira, N. Y.		1
El Paso, Tex.	1	
Erie, Pa.	1	
Everett, Mass.	1	
Fairmont, W. Va.	14	
Fall River, Mass.	10	
Fargo, N. Dak.	1	1
Fort Scott, Kans.		1
Fort Worth, Tex.	2	1
Galveston, Tex.	1	
Garfield, N. J.	1	
Geneva, N. Y.	1	
Greensboro, N. C.	2	1
Greenville, Tex.	1	
Hackensack, N. J.	1	1
Hartford, Conn.	1	
Hoboken, N. J.	1	
Homestead, Pa.	7	
Houston, Tex.	1	
Indianapolis, Ind.	2	
Iola, Kans.	1	
Jackson, Miss.	2	
Jacksonville, Ill.	4	1
Jersey City, N. J.	1	
Johnstown, Pa.	2	
Kansas City, Kans.	5	
Kansas City, Mo.	10	
Knoxville, Tenn.	1	
La Fayette, Ind.	1	
Lawrence, Mass.	1	
Little Rock, Ark.	7	
Lorain, Ohio.	1	
Los Angeles, Cal.	4	
Louisville, Ky.	12	
Lowell, Mass.	1	
Manchester, Conn.	3	
Manitowoc, Wis.	1	
Mattoon, Ill.	1	
Meadville, Pa.	1	
Milwaukee, Wis.	2	
Mobile, Ala.	4	1
Moline, Ill.	16	2
Montgomery, Ala.	8	
Nashville, Tenn.	18	3
Newark, N. J.	6	1
Newburyport, Mass.	1	
New Castle, Pa.	3	
New Haven, Conn.	1	
New London, Conn.	2	
New Orleans, La.	9	6
Newport, R. I.	1	
New York, N. Y.	43	1
Norfolk, Va.	1	
North Braddock, Pa.	1	
North Yakima, Wash.	11	
Oakland, Cal.	2	
Oklahoma City, Okla.	1	
Omaha, Nebr.	4	
Palestine, Tex.	1	
Parkersburg, W. Va.	1	
Passaic, N. J.	1	
Petersburg, Va.	3	1
Philadelphia, Pa.	11	3
Pittsburgh, Pa.	5	
Plainfield, N. J.	1	
Pontiac, Mich.	1	
Portland, Me.		1
Portland, Oreg.	1	1
Pottstown, Pa.	2	
Providence, R. I.	1	
Rahway, N. J.	1	
Raleigh, N. C.	1	
Reading, Pa.	2	
Richmond, Va.		1
Roanoke, Va.	1	
Rock Island, Ill.	5	
Saginaw, Mich.	1	1
St. Joseph, Mo.	4	
St. Louis, Mo.	18	2
Salt Lake City, Utah.	3	
San Diego, Cal.	1	
San Francisco, Cal.	2	1
San Jose, Cal.	1	
Sault Ste. Marie, Mich.	1	
Schenectady, N. Y.	1	
Scranton, Pa.	1	
Seattle, Wash.	1	
Sedalia, Mo.	1	
Shamokin, Pa.	1	
Sioux Falls, S. Dak.	2	
South Bend, Ind.	1	
Spartanburg, S. C.	4	
Spokane, Wash.	1	
Springfield, Mass.		1
Springfield, Mo.	1	
Springfield, Ohio.	3	
Steelton, Pa.	1	
Syracuse, N. Y.	4	
Tacoma, Wash.	1	
Taunton, Mass.	1	
Toledo, Ohio.	3	3
Topeka, Kans.	5	1
Trenton, N. J.	1	1
Troy, N. Y.	1	
Vancouver, Wash.	1	
Waco, Tex.	4	
Walla Walla, Wash.	15	
Waltham, Mass.		1
Warren, Pa.	1	
Washington, D. C.	11	
Washington, Pa.	2	
West Chester, Pa.	6	
Westfield, Mass.	3	
Wheeling, W. Va.	1	1
Wichita, Kans.	10	1
Wilkes-Barre, Pa.	2	
Williamsport, Pa.	1	
Wilmington, Del.	3	
Wilmington, N. C.		1
Winston-Salem, N. C.	5	
York, Pa.	4	
Youngstown, Ohio.	1	2
Zanesville, Ohio.	2	

TYPHUS FEVER.

City Report for Week Ended Aug. 17, 1918.

During the week ended August 17, 1918, there were reported two deaths from typhus fever at Houston, Tex.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for July, 1918.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
California	222	494	136	Pennsylvania	779	3,440	310
Mississippi	50	277	28				

City Reports for Week Ended Aug. 17, 1918.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md	589,621	227	7	.....	6	1	2	.....	27	23
Boston, Mass	756,476	193	39	1	22	.....	5	.....	62	20
Chicago, Ill	2,497,722	591	53	12	19	1	11	1	261	56
Cleveland, Ohio	674,073	158	9	.....	8	1	2	.....	33	17
Detroit, Mich	571,784	145	27	.....	9	1	10	1	26	18
Los Angeles, Cal	503,812	118	11	.....	8	.....	1	.....	34	25
New York, N. Y	5,602,841	1,144	93	16	49	5	18	1	268	130
Philadelphia, Pa	1,709,518	616	23	1	28	1	11	.....	91	72
Pittsburgh, Pa	579,090	.....	13	.....	31	.....	1	.....	26	.....
St. Louis, Mo	757,309	209	21	1	4	.....	4	1	36	13
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y	468,538	150	24	1	24	2	2	.....	33	19
Cincinnati, Ohio	410,476	.....	9	2	14	.....	.....	.....	16	13
Jersey City, N. J	306,345	.....	7	.....	2	.....	.....	.....	18	.....
Milwaukee, Wis	436,535	52	9	.....	26	1	9	.....	.....	4
Minneapolis, Minn	363,454	64	29	1	4	.....	3	.....	13	3
Newark, N. J	408,894	91	11	2	5	.....	2	.....	30	13
New Orleans, La	371,747	.....	26	.....	.....	.....	.....	.....	31	18
San Francisco, Cal	463,516	108	9	.....	23	.....	3	.....	23	12
Seattle, Wash	348,639	.....	3	.....	2	.....	7	.....	3	.....
Washington, D. C	363,980	107	2	1	2	.....	3	.....	23	13
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio	214,878	63	.....	.....	1	.....	5	.....	5	6
Denver, Colo	260,800	54	6	1	.....	.....	5	.....	.....	7
Indianapolis, Ind	271,708	67	11	2	1	.....	7	.....	11	7
Kansas City, Mo	297,847	76	4	.....	.....	.....	1	.....	2	5
Louisville, Ky	238,910	57	1	.....	.....	.....	.....	.....	18	4
Portland, Oreg	295,465	35	1	.....	2	.....	4	.....	6	.....
Providence, R. I	254,960	56	8	.....	1	1	3	.....	.....	7
Rochester, N. Y	256,417	62	6	.....	4	.....	3	.....	12	7
St. Paul, Minn	247,232	42	9	1	.....	.....	1	1	7	6
From 100,000 to 200,000 inhabitants:										
Atlanta, Ga	190,558	63	.....	.....	.....	.....	3	.....	2	6
Birmingham, Ala	181,762	.....	5	.....	1	.....	3	.....	6	6
Bridgeport, Conn	121,579	36	5	1	.....	.....	.....	.....	1	1
Cambridge, Mass	112,981	25	.....	.....	1	.....	2	.....	8	2
Dallas, Tex	124,527	31	.....	.....	.....	.....	.....	.....	3	4
Dayton, Ohio	127,244	29	.....	.....	1	.....	1	.....	2	4
Fall River, Mass	128,366	38	1	1	3	.....	2	.....	7	4
Fort Worth, Tex	104,562	18	3	.....	.....	.....	.....	.....	.....	.....
Grand Rapids, Mich	128,291	37	1	1	5	.....	1	.....	6	.....
Hartford, Conn	110,900	29	2	.....	4	.....	2	.....	5	2
Houston, Tex	112,307	34	3	.....	.....	.....	.....	.....	8	2
Lawrence, Mass	100,560	39	.....	.....	4	3	.....	.....	3	4
Lowell, Mass	113,245	33	.....	.....	12	1	1	.....	4	1
Lynn, Mass	102,425	26	1	.....	1	.....	.....	.....	2	1
Nashville, Tenn	117,057	61	1	.....	2	.....	2	.....	6	4
New Bedford, Mass	118,158	40	1	1	2	.....	.....	.....	10	4
New Haven, Conn	149,685	36	4	.....	.....	.....	2	.....	14	4
Oakland, Cal	198,604	.....	1	.....	3	.....	5	.....	5	5
Omaha, Nebr	165,470	38	8	1	1	.....	1	.....	1	1
Reading, Pa	109,381	.....	1	.....	.....	.....	1	.....	.....	.....
Richmond, Va	156,687	50	3	.....	2	.....	.....	.....	.....	6
Salt Lake City, Utah	117,399	20	1	.....	.....	.....	4	.....	.....	2

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Aug. 17, 1918—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 100,000 to 200,000 inhabitants—Continued.										
Scranton, Pa.	146,811		4		1		1		4	
Spokane, Wash.	150,323		4		1		3		4	
Springfield, Mass.	105,942	32	2		2				4	1
Syracuse, N. Y.	155,624	57	3						3	4
Tacoma, Wash.	112,770		2		9		15		1	
Toledo, Ohio.	101,554	80	1				7			7
Trenton, N. J.	111,593	47	3						6	4
Youngstown, Ohio.	108,385	43			1		1		4	2
From 50,000 to 100,000 inhabitants:										
Akron, Ohio.	85,625		4						22	
Allentown, Pa.	63,505		2		6					
Altoona, Pa.	58,659		4		2		1			
Atlantic City, N. J.	57,660	11			3				2	1
Augusta, Ga.	50,245	8							9	
Bayonne, N. J.	69,893								2	
Berkeley, Cal.	57,653	11					1			
Binghamton, N. Y.	53,973	18			5		2			
Brockton, Mass.	67,449	10			2				2	
Canton, Ohio.	60,852	18	2						1	1
Charleston, S. C.	60,734	20							2	3
Covington, Ky.	57,144	16	1		1					1
Duluth, Minn.	94,495	14		1	2		1		6	
Erie, Pa.	75,195		3		2				4	
Flint, Mich.	54,772	15	4		2					1
Fort Wayne, Ind.	76,183	13	2						8	2
Harrisburg, Pa.	72,015		1							
Hoboken, N. J.	77,214	11	2				2			
Holyoke, Mass.	65,286	16							2	1
Johnstown, Pa.	68,529		3		14				2	
Kansas City, Kans.	99,437								6	
Lancaster, Pa.	50,853		1		2					
Malden, Mass.	51,155	17	1	1	1					2
Manchester, N. H.	78,283	18	2		2				2	2
Mobile, Ala.	58,221	26	2	1						
Norfolk, Va.	80,612		1							2
Oklahoma City, Okla.	92,943	19	2						5	2
Passaic, N. J.	71,744	15	6		5				4	1
Peoria, Ill.	71,458	15	5	1	1		2			
Portland, Me.	63,867	18	1							
Rockford, Ill.	55,185		1						4	
Sacramento, Cal.	66,895	15	11		2		1		2	3
Saginaw, Mich.	55,642	18	1							1
St. Joseph, Mo.	85,236	26	4				1		2	4
San Diego, Cal.	53,330	23	2						5	5
Schenectady, N. Y.	99,519	20			2				3	1
Somerville, Mass.	87,039	9	1						2	
South Bend, Ind.	68,946	8							1	1
Springfield, Ill.	61,120	13	1							1
Springfield, Ohio.	51,550	16			1				1	
Terre Haute, Ind.	66,083	12								2
Troy, N. Y.	77,916	20			1				4	2
Wilkes-Barre, Pa.	76,776		5		7				3	
Wilmington, Del.	94,265	35	2							
Yonkers, N. Y.	99,838	21	1		2				9	4
York, Pa.	51,656				3				5	
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,732	3							1	1
Auburn, N. Y.	37,385	6								
Boise, Idaho	33,846	4					2			
Brookline, Mass.	32,730	7							1	1
Burlington, Iowa.	25,030	1								
Butte, Mont.	43,425	18	2		1		1			
Charleston, W. Va.	29,941	12	1				1			1
Charlotte, N. C.	39,823	10					9			
Chelsea, Mass.	45,192	4	2		2				2	1
Chester, Pa.	41,306								1	
Cohoes, N. Y.	25,211								2	1
Cumberland, Md.	26,074	7							2	1
Danville, Ill.	32,261	14							1	

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Aug. 17, 1918—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Continued.										
Davenport, Iowa	48,811		2				1			
Durham, N. C	25,061	9							1	
East Chicago, Ind	28,743	8								
East Orange, N. J	42,458	4	2							
Elgin, Ill	28,203	6							3	2
Elmira, N. Y	38,120				14					1
Evanston, Ill	28,591	2								1
Everett, Mass	39,235	6	1				1		2	1
Everett, Wash	35,486		1				2		4	
Galveston, Tex	41,863	10	1						1	3
Green Bay, Wis	29,353	3					1		1	
Hammond, Ind	26,171	4								
Haverhill, Mass	48,477	7	2	1	4				1	1
Hazelton, Pa	28,491				4					
Jackson, Mich	35,363	10	1		1				2	
Jamestown, N. Y	36,580	7			9				1	1
Kalamazoo, Mich	48,886	10			1				2	
Kenosha, Wis	31,576	12	3		7					
Knoxville, Tenn	38,676				1		1		1	1
La Crosse, Wis	31,677	8							1	
Lexington, Ky	41,007	14			1					1
Lincoln, Nebr	46,515	5	1		1				1	
Long Beach, Cal	27,587	7					1		1	
Lorain, Ohio	36,964								1	
Lynchburg, Va	32,940	4								1
Madison, Wis	30,699	3								
McKeesport, Pa	47,521		1		1				1	
Medford, Mass	20,234	6	1		3				1	1
Moline, Ill	27,451	13					2			1
Montclair, N. J	26,318	6							1	
Montgomery, Ala	43,285	20	1				1			
Muncie, Ind	25,424	6	4						3	
New Castle, Pa	41,135								1	
Newport, R. I	30,108	3								
Newton, Mass	43,715	13	1						1	
Niagara Falls, N. Y	37,353	11	1		9					1
Oak Park, Ill	26,654	6	1							
Ogden, Utah	31,404	7	1							
Orange, N. J	33,080	11					1		1	1
Oshkosh, Wis	36,065	7	1							
Pasadena, Cal	46,450	9	1		1				1	
Perth Amboy, N. J	41,185	9								1
Petersburg, Va	25,582	12					3			1
Pittsfield, Mass	38,629	15								2
Poughkeepsie, N. Y	30,390	9							1	
Quincy, Mass	38,136	4	1				1		1	
Roanoke, Va	43,284	16							4	1
Rock Island, Ill	28,926	11	1							
Sheboygan, Wis	28,559	7	1		1					
Shenandoah, Pa	29,201		1							
Springfield, Mo	40,341	6							1	
Steubenville, Ohio	27,445	6								
Stockton, Cal	35,358	11					2		1	
Superior, Wis	46,226	7					6			1
Taunton, Mass	36,283	12	1		3				1	2
Topeka, Kans	48,726				2		1		2	
Waco, Tex	33,385	8							1	1
Walla Walla, Wash	25,136				1				1	
Waltham, Mass	30,570	4			1				1	
Watertown, N. Y	29,894	1		1						
West Hoboken, N. J	43,139	3							1	
Wheeling, W. Va	43,377	15					1			
Williamsport, Pa	33,809		1		1		1			
Wilmington, N. C	29,892	15					1			1
Winston-Salem, N. C	31,155	23	3	1						
Zanesville, Ohio	30,863	7							1	

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Aug. 17, 1918—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabitants:										
Adams, Mass.	14,214	1	1							1
Alexandria, La.	15,333	2								
Alton, Ill.	22,874	8	1							
Anniston, Ala.	14,112						1			
Ansonia, Conn.	16,704	6								1
Appleton, Wis.	17,834	4								
Arlington, Mass.	12,810	11							1	
Asbury Park, N. J.	14,607	4							1	
Ashtabula, Ohio.	21,498	9							1	
Attleboro, Mass.	19,283	4								
Bakersfield, Cal.	16,874	5								2
Beatrice, Nebr.	10,287	3								
Belleville, N. J.	12,393				1					
Beloit, Wis.	18,072	4	3							1
Benton Harbor, Mich.	10,833	2								
Bethlehem, Pa.	14,142				3				3	
Beverly, Mass.	21,645	8								1
Bloomfield, N. J.	18,468	2	1							
Brazil, Ind.	10,315	3								
Bristol, Conn.	15,927	1					2		1	
Bristol, R. I.	9,609	11								
Burlington, Vt.	21,617	6			2					
Cairo, Ill.	15,794	4								
Canton, Ill.	13,262	3								
Carbondale, Pa.	19,242		1		1					
Chillicothe, Ohio.	15,470	4							3	1
Clinton, Mass.	[1] 13,075	1			3				1	
Coatesville, Pa.	14,455				1					
Concord, N. H.	22,669	9			2					2
Connellsville, Pa.	15,455								1	
Corpus Christi, Tex.	10,432	3								
Corsicana, Tex.	10,022	4	2						1	
Dedham, Mass.	10,433	3								1
Dover, N. H.	13,272	1			1		1			
Du Bois, Pa.	14,665		1		1					
East Cleveland, Ohio.	13,214				1					
Elyria, Ohio.	18,618	4								
Englewood, N. J.	12,251	1								
Fargo, N. Dak.	17,389	3								1
Farrell, Pa.	[1] 10,190				2					
Fond du Lac, Wis.	21,113	3					1			
Fort Dodge, Iowa.	20,648		1							
Fort Scott, Kans.	10,550	3								
Fostoria, Ohio.	10,770	1	1							
Galesburg, Ill.	24,267	4								
Gardner, Mass.	17,140									1
Garfield, N. J.	14,429								2	
Geneva, N. Y.	13,711	4					2			
Greenfield, Mass.	11,998	5					3			
Greensboro, N. C.	19,577	11	1	1						1
Greenville, S. C.	18,181	3	1							
Greenwich, Conn.	19,159								1	
Hackensack, N. J.	16,945	9			1				1	
Hancock, Mich.	12,079	1								
Harrison, N. J.	16,950								2	
Hattiesburg, Miss.	16,432				1				1	
Holland, Mich.	13,185	2								1
Homestead, Pa.	22,466		2		11				1	
Hornell, N. Y.	14,685	1			2					
Independence, Kans.	14,506	1								1
Iola, Kans.	11,008				4					
Jacksonville, Ill.	15,481	7								
Kankakee, Ill.	14,230		1							
Kearney, N. J.	23,539	5								
Kokomo, Ind.	20,930	11	1						1	1
Lackawanna, N. Y.	15,987	6			5				3	
La Fayette, Ind.	21,288	4								
Leavenworth Kans.	[1] 19,363	14							4	1
Mahanoy City, Pa.	17,463		1		1		1			
Manchester, Conn.	15,551	5								

[1] Population Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Aug. 17, 1918—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabitants—Continued.										
Manitowoc, Wis	13,805	5					3		1	1
Marinette, Wis	[1] 14,610	2								
Marion, Ind	19,834	10					1			
Marquette, Mich	12,409	5							1	1
Marshall, Tex	13,712	3								
Mason City, Iowa	14,457	4								
Massillon, Ohio	15,310	2								
Mattoon, Ill	12,582	3								
Melrose, Mass	17,445	3								
Mishawaka, Ind	16,385	6	5							
Missoula, Mont	18,214	1			1					
Monessen, Pa	21,630		3							
Morgantown, W. Va	13,709	2								
Morristown, N. J	13,284	5							1	
Natick, Mass	10,102	1							1	
Newburyport, Mass	15,243	6							1	
New London, Conn	20,985	7			1				2	3
North Adams, Mass	[1] 22,019	10								2
Northampton, Mass	19,926	8								1
North Attleboro, Mass	11,014	2	3							
North Tonawanda, N. Y	13,768	3								
North Yakima, Wash	20,951				1				1	
Norwood, Ohio	22,286	3	1		1					1
Olean, N. Y	16,624	7								
Palestine, Tex	11,854	2							1	
Parkersburg, W. Va	20,612	4					1			
Peabody, Mass	18,360	3	1	1						
Phoenixville, Pa	11,714				3					
Piqua, Ohio	14,153	3							2	
Plainfield, N. J	23,805	7							2	
Plymouth, Mass	13,743	4		1						
Pontiac, Mich	17,524	3			3				1	
Port Chester, N. Y	16,183	1								
Portsmouth, N. H	11,666				1		1		1	
Pottstown, Pa	16,794		1		13					
Pottsville, Pa	22,372		2		2					
Rahway, N. J	10,219	2								1
Raleigh, N. C	20,127	18							1	2
Riverside, Cal	19,763	5							1	1
Rocky Mount, N. C	12,067	4								
Rutland, Vt	14,831	1								
St. Cloud, Minn	11,617	2								
San Angelo, Tex	10,321	2								
Sanford, Me	10,916	1								
Santa Ana, Cal	10,627	3							1	
Santa Cruz, Cal	14,594	4					1			1
Saratoga Springs, N. Y	13,821	7								1
Sault Ste. Marie, Mich	13,919	2	1							
Sedalia, Mo	19,449	6							2	
Shamokin, Pa	21,129		9						1	
Sioux Falls, S. Dak	16,499				2					
Spartanburg, S. C	21,365	5								
Steelton, Pa	15,548						1		4	
Streator, Ill	14,304	6	1	1						1
Vallejo, Cal	13,461	2								1
Vancouver, Wash	13,180						3			
Washington, Pa	21,618								1	
Watertown, Mass	14,867	1							2	
Wausau, Wis	19,239	4								
West Chester, Pa	13,176		1							
Westfield, Mass	18,391	4					1		1	1
West New York, N. J	18,773								1	
Winona, Minn	[1] 18,583	4								
Woburn, Mass	15,969	2	1							1

[1] Population Apr. 15, 1910; no estimate made.

FOREIGN.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Aug. 1–10, 1918.		Remaining under treatment Aug. 10, 1918.	Disease.	Aug. 1–10, 1918.		Remaining under treatment Aug. 10, 1918.
	Cases.	Deaths.			Cases.	Deaths.	
Diphtheria	2	1	3	Paratyphoid fever			4
Leprosy			13	Scarlet fever	2	1	1
Malaria	15		[1] 24	Typhoid fever	33	9	[2] 133
Measles	5		6				

[1] From the interior, 22.

[2] From the interior, 67.

GREECE.

Recurrence of Typhus Fever—Janina. [1]

Recurrence of typhus fever has been reported at Janina and in vicinity, with 15 cases notified August 29, 1918.

Epidemic typhus was reported at Janina in January and February, 1918, with a total to February 14, 1918, of 110 cases.

MEXICO.

Yellow Fever Epidemic Extinct—Acapulco.

The outbreak of yellow fever reported at Acapulco, Mexico, June 16, 1918, was declared at an end August 24, 1918.

SWITZERLAND.

Influenza—Geneva—St. Gall—Zurich. [2]

Influenza was reported present, July 31, 1918, in Geneva and surrounding country. On August 1, 1918, a severe epidemic of influenza, with some fatalities, was reported at St. Gall.

From the outbreak of the epidemic of influenza at Zurich to August 6, 1918, 1,985 cases were notified. Occurrence of the disease from June 1 to July 27, 1918, has been reported as follows: June 1 to July 17, 1,081 cases; July 18 to 27, 797 cases. The number of fatalities reported was 48.

[1] Public Health Reports, Apr. 12, 1918, p. 564 (table).
[2] Public Health Reports, Aug. 2, 1918, p. 1307.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Sept. 6, 1918.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
East Java—				
Surabaya	June 6-12	13	3	
Mid-Java				June 6-12, 1918: Cases, 83; deaths, 59.
West Java				June 14-20, 1918: Cases, 82; deaths, 61.
Batavia	June 14-20	21	7	

PLAGUE.

China:				
Hongkong	July 7-20	41	34	
Ecuador:				
Guayaquil	July 1-31	1		Feb. 16-28, 1918: Cases, 22; deaths, 8.
Java:				
East Java—				
Surabaya	June 11-21	21	21	
Siam:				
Bangkok	June 9-29	40	33	

SMALLPOX.

Brazil:				
Rio de Janeiro	June 8-29	30	3	
Do	July 2-20	38	8	
Canada:				
Nova Scotia—				
Halifax	Aug. 11-17	4		
China:				
Amoy	June 17-July 6			Present.
Dairen	June 25-July 15	6	1	
Harbin	Apr. 22-June 23	2		
Manchuria Station	Apr. 9-June 9	14		
Java:				
East Java—				
Surabaya	June 11-21	8	2	
Mid-Java				June 6-12, 1918: Cases, 3; death, 1.
West Java				June 14-20, 1918: Cases, 40; deaths, 21.
Batavia	June 14-20	37	21	
Mexico:				
Mazatlan	July 31-Aug. 6		1	
Mexico City	July 28-Aug. 10	7		
Portugal:				
Lisbon	July 14-27	15		
Siam:				
Bangkok	June 9-29	3	2	
Sweden:				
Stockholm	June 9-15	10		
Tunisia:				
Tunis	July 20-26		1	

TYPHUS FEVER.

Brazil:				
Rio de Janeiro	June 2-8	1		
Do	July 7-13	1		
China:				
Antung	July 8-21	1	1	
Harbin	Apr. 15-June 16	20		Chinese Eastern Ry.
Manchuria Station	Apr. 9-June 30	27		Do.
Pogranitchnaya	May 20-June 16	4		Do.
Greece:				
Saloniki	June 30-July 13	9		
Mexico:				
Aguascalientes	Aug. 6-12	1	1	
Mexico City	July 28-Aug. 10	77		
Tunisia:				
Tunis	July 20-26	1		

[1] From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Sept. 6, 1918—Continued.

YELLOW FEVER.

Place.	Date	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil	July 1-31	26	9	And vicinity. Feb. 16-28, 1918: Cases, 2.

Reports Received from June 29 to Aug. 30, 1918.

CHOLERA.

Austria-Hungary:				
Hungary				July 26, 1918: Present.
India:				
Bombay	Mar. 17-Apr. 13	2	1	
Calcutta	Apr. 14-May 18		279	
Madras	Mar. 24-May 11	4	2	
Rangoon	Mar. 30-May 18	25	19	
Indo-China				Jan. 1-Feb. 28, 1918: Cases, 100; deaths, 126.
Cambodia	Jan. 1-Feb. 28	125	83	
Cochin-China	do	54	43	May 20-June 16, 1918: Cases, 66; deaths, 55.
Cholon	May 20-June 16	4		
Saigon	Apr. 20-May 26	64	4	
Tonkin	Jan. 1-31	1	43	
Java:				
East Java—				
Surabaya	July 24			Present.
Mid-Java				Apr. 18-June 5, 1918: Cases, 734; deaths, 559.
Samarang	July 24			Present.
West Java				Feb. 22-June 13, 1918: Cases, 1,319; deaths, 791.
Batavia	Feb. 22-June 13	200	93	
Cheribon	June 7-13	137	104	
Persia:				
Provinces—				
Kars Province—				
Kazaroun				December, 1917: 3 or 4 deaths reported daily.
Mahour-Milati				Present in December, 1917, with about 300 fatal cases reported.
Khorasan				Oct. 2-Nov. 16, 1917: Cases, 78; deaths, 50. In 7 localities.
Scistan				Nov. 4, 1917: Cases, 6. A part of this Province or region extends into Afghanistan.
Philippine Islands:				
Provinces				Apr. 28-June 29, 1918: Cases, 677 deaths, 429.
Bohol	Apr. 28-June 29	65	53	
Capiz	Apr. 28-May 4	1	1	
Cebu	May 5-June 22	35	19	
Leyte	Apr. 28-June 29	108	59	
Misamis	Apr. 28-June 22	294	163	
Oriental Negros	June 3-29	42	23	
Sorsogon	June 2-29	112	100	
Surigao	Apr. 28-June 22	92	89	
Provinces				June 30-July 13, 1918: Cases, 199; deaths, 93.
Bohol	July 7-13	95	48	
Cebu	June 30-July 13	42	19	
Leyte	do	2	2	
Misamis	do	38	11	
Oriental Negros	do	20	11	
Surigao	do	2	2	
Russia:				
Petrograd	July 7			Present.
Sweden:				
Stockholm	July 15	5	1	From S. S. Angermanland from Petrograd, Russia.
Switzerland				July 26, 1918: Present.
On vessel:				
S. S. Angermanland	July 14	8	1	At Stockholm; from Petrograd.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 29 to Aug. 30, 1918—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden	May 22-28		1	
Argentina:				
Buenos Aires	Apr. 20-May 22	16	2	
Tucuman				In March, 1918; 3 cases in an institution.
Brazil:				
Bahia	June 16-22	1	1	
Ceylon:				
Colombo	Mar. 23-May 11	13	13	
China:				
Hongkong	Apr. 14-June 29	124	94	
Do	June 30-July 6	40	28	
Ecuador:				
Duran	Apr. 1-30	2		
Guayaquill	May 1-June 15	28	10	
Egypt				Jan. 1-June 20, 1918: Cases, 203; deaths, 110.
Port Said	May 19-21	2	1	1 pneumonic.
Provinces—				
Beni-Souef	Apr. 26-30	2	1	
Fayoum	Apr. 21-June 17	8	4	
Keneh	May 16	1	1	
Minieh	Apr. 23-June 10	33	14	5 septicemic.
Great Britain:				
Erwarton	June 19	1	1	Rural district, Samford, East Suffolk.
London, Port	Aug. 17	5		On vessel from Calcutta.
Rochester	June 2	1	1	From s. s. Somali at Gravesend from Bombay.
India				Mar. 31-May 11, 1918: Cases, 113,795; deaths, 61,178.
Bassein	Mar. 25-Apr. 27		90	
Bombay	Mar. 24-Apr. 20	493	402	
Calcutta	Apr. 14-May 18		60	
Henzada	Mar. 24-Apr. 13		20	
Madras Presidency	Mar. 24-May 11	442	332	
Mandalay	Mar. 17-Apr. 20		52	
Moulmein	Mar. 24-Apr. 27		127	
Myingyan	Mar. 17-Apr. 14		10	
Pegu	Apr. 14-20		2	
Prome	Mar. 24-Apr. 27		23	
Rangoon	Mar. 30-May 18	384	371	
Toungoo	Mar. 24-Apr. 27		59	
Indo-China				Jan. 1-Feb. 28, 1918: Cases, 275; deaths, 200.
Anam	Jan. 1-Feb. 28	53	38	
Cambodia	do	128	120	
Cochin-China	do	85	40	May 20-June 8, 1918: Cases, 60; deaths, 30.
Cholon	May 20-June 8	12	6	
Saigon	Apr. 29-June 8	83	36	
Laos	Feb. 1-28	4	2	
Java:				
East Java				Jan. 15-Apr. 22, 1918: Cases, 323; deaths, 226.
Residences—				
Djocjakarta	Jan. 15-Apr. 8	3	3	
Kediri	do	13	10	
Madioen	do	30	30	
Samarang	do	82	81	
Surabaya	do	60	60	
Surakarta	do	12	12	
Peru				Jan. 1-June 30, 1917: Cases, 245; deaths, 122. July 1-Dec. 31, 1917: Cases, 169; deaths, 89. For distribution according to departments, see Public Health Reports, July 26, 1918, p. 1261. Apr. 1-May 31, 1918: Cases, 71.
Departments—				
Ancachs	Apr. 1-15	1		
Cajamarca	Apr. 16-May 31	7		
Lambayeque	do	8		
Libertad	Apr. 1-May 31	40		
Lima	do	6		
Piura	do	9		
Siam:				
Bangkok	May 10-25	42	24	
Straits Settlements:				
Penang	June 2-8	1	1	
Singapore	Apr. 2-June 22	61	53	
On vessel:				
S. S. Somali	May 19	3	1	At Gravesend, England, from Bombay. Further case developed June 2 in member of crew at Rochester, England.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 29 to Aug. 30, 1918—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers	May 1-June 30	121	34	
Brazil:				
Bahia	May 5-June 22	2		
Rio de Janeiro	May 5-June 1	27	6	
Santos	Apr. 22-28		1	
British East Africa:				
Mombasa	Jan. 1-Mar. 31		3	
Canada:				
British Columbia—				
Victoria	June 23-29	4		
Do	July 7-Aug. 3	2		
Manitoba—				
Winnipeg	June 9-22	5		
Do	July 7-20	4		
New Brunswick—				
Moncton	June 16-22	2		
Do	July 7-13	4		
Newfoundland—				
St. Johns	June 22-28	1		
Nova Scotia—				
Halifax	do	10		
Do	June 30-Aug. 9	61		
Sydney	do	3		
Ontario				July 1-31, 1918; Cases, 38.
Windsor	July 21-27	1		
Prince Edward Island—				
Summerside	July 9-15	1		
Quebec—				
Montreal	July 7-13	1		
Ceylon:				
Colombo	Mar. 23-May 18	8	2	
China:				
Amoy	Apr. 1-June 9			Present.
Antung	May 20-June 9	6	1	
Chungking	May 12-June 29			Present.
Dairen	May 7-June 24	50	10	
Hailar Station	Feb. 12-18	2		Chinese Eastern Rwy.
Harbin	Mar. 20-26	2		Do.
Manchuria Station	Feb. 19-Apr. 8	5		Do.
Hongkong	Apr. 6-June 8	5	2	
Nanking	June 16-22			Present.
Do	June 30-July 13			Present.
Shanghai	Apr. 21-June 2	3		
Tientsin	May 19-June 15	10		
Tsingtau	May 6-June 30	28	1	
Do	July 1-7	2		
Colombia:				
Barranquilla	July 14-20		1	
Cartagena	May 21-July 1		2	
Do	July 8-15		1	
Denmark:				
Copenhagen	June 16-22	13		
Ecuador:				
Guayaquil	Apr. 1-30		2	
Egypt:				
Alexandria	May 7-13	1		
France:				
La Rochelle	June 2-8	1	1	
Paris	Apr. 21-June 29	14	3	
Rouen	May 12-June 15	6		Including varioloid.
Germany				Mar. 24-June 1, 1918: Cases, 29.
Great Britain:				
Liverpool	June 9-15	1		From vessel.
Greece:				
Kalamata	June 26			Present.
India:				
Bombay	Mar. 24-Apr. 6	731	356	
Calcutta	Apr. 14-May 18		167	
Karachi	Apr. 6-20	29	21	
Madras	Mar. 21-May 18	52	13	
Rangoon	Mar. 31-May 18	78	35	
Indo-China				Jan. 1-Feb. 28, 1918: Cases, 1,375; deaths, 291.
Anam	Jan. 1-Feb. 28	566	93	
Cambodia	do	43	9	
Cochin-China	do	650	216	May 20-June 16, 1918; Cases, 67; deaths, 24.
Cholon	May 20-June 16	1		
Kwang Chow-Wan	Feb. 1-28	2	1	
Laos	Jan. 1.-Feb. 28	8	1	
Tonkin	do	106	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 29 to Aug. 30, 1918—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Italy:				
Genoa	June 14-30	19	5	
Do	July 2-15	19	5	
Mezzojuso	May 29			Many cases. Province of Palermo, Sicily.
Milan				In April, 1918: Cases, 2. May 1-31, 1918: Cases, 54.
Palermo	May 30-June 5	1		
Turin	Apr. 15-June 9	16	1	
Japan:				
Nagasaki	May 2-June 30	14	2	
Do	July 3-21	1	1	
Taihoku	May 21-July 1	18	9	Island of Formosa.
Tokyo	May 5-June 23	17		Feb. 14-Mar. 13, 1918: Cases, 15.
Java:				
East Java				Feb. 12-Apr. 22, 1918: Cases, 26; deaths, 4.
Surabaya	Feb. 26-Apr. 8	2	1	
Mid-Java				Feb. 14-June 5, 1918: Cases, 103; deaths, 2.
West Java				Feb. 22-June 13, 1918: Cases, 343; deaths, 105.
Batavia	Feb. 2-June 13	89	30	
Mesopotamia:				
Bagdad	Mar. 6-May 10	21	7	
Mexico:				
Aguascalientes	June 10-16		1	
Guadalajara	June 1-30	3		
Mazatlan	June 5-25		2	
Do	July 3-23		2	
Mexico City	May 19-June 22	78		
Do	June 30-July 27	15		
Philippine Islands:				
Manila	Apr. 28-June 29	884	616	Varioloid: Cases, 178; 1 death.
Do	June 30-July 6	29	27	Varioloid: Cases, 3; deaths, 1.
Portugal:				
Lisbon	Feb. 24-June 29	97		
Do	June 30-July 13	25		
Russia:				
Lithuania	Mar. 3-May 4	88	3	
Siam:				
Bangkok	May 11-June 8	6	3	
Siberia:				
Vladivostok	May 1-June 15	31	5	
Spain:				
Coruna	Apr. 28-June 30	1	1	
Malaga	Dec. 1-31		29	
Do	Jan. 1-31		16	
Seville	Apr. 1-May 31		2	
Straits Settlements:				
Penang	May 5-11	2		
Union of South Africa:				
Johannesburg	Feb. 1-Apr. 30	37		
On vessel				1 case. At Liverpool, England.

TYPHUS FEVER.

Argentina:				
Rosario	Apr. 1-May 31		2	
Austria-Hungary:				
Hungary				Feb. 25-Apr. 28, 1918: Cases, 209; deaths, 9.
Budapest	Feb. 25-Apr. 28	51	1	
Brazil:				
Rio de Janeiro	May 26-June 1	1		
China:				
Antung	May 20-June 9	4		
Changsha	May 11-17	2	1	
Harbin	Jan. 1-Apr. 8	17		On Chinese Eastern Ry.
Manchuria Station	Jan. 15-Apr. 8	14		Do.
Shanghai	May 5-11		1	
Egypt:				
Alexandria	May 7-July 1	1,362	321	
Germany				Apr. 14-May 11, 1918: Cases, 54; deaths, 4. In addition, 101 cases among prisoners of war, of which 99 in Königsberg and 1 in Oppeln, and 3 cases among the repatriated from Volhynia, Russia.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 29 to Aug. 30, 1918—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain:				
Belfast	May 26-June 1	1		
Edinburgh	June 9-15		1	
Glasgow	May 19-June 1	13	4	
Greece:				
Athens	Apr. 14-May 13		5	
Saloniki	Apr. 28-June 29		36	
Italy:				
Corato	May 6-June 2	4		Province of Bari.
Monetta	May 6-June 9	25		Do.
Naples	Apr. 20-May 5	1		
Japan:				
Nagasaki	May 27-June 23	1	1	
Do	July 3-21	1	1	
Tokyo	June 24-July 7	1		
Java:				
East Java				Feb. 12-Apr. 8, 1918: Cases, 29; deaths, 8.
Surabaya	Feb. 12-Apr. 8	22	6	
Mid-Java				Feb. 14-May 22, 1918: Cases, 32; deaths, 4.
Samarang	Feb. 21-May 22	10	3	
West Java				Feb. 28-June 6, 1918: Cases, 89; deaths, 18.
Batavia	Feb. 28-June 6	61	15	
Mesopotamia:				
Bagdad	Mar. 29-May 10	84		
Mexico:				
Aguascalientes	July 8-14		1	
Chihuahua, State—Parral	July 10			Epidemic; reported present from about June 15, 1918.
Guadalajara	June 1-30	5	2	
Mexico City	May 19-June 22	186		
Do	June 30-July 27	165		
Portugal:				
Lisbon	Feb. 24-May 25	5		
Siberia:				
Vladivostok	May 1-June 15	16	2	
Russia:				
Lithuania				Mar. 3-Apr. 14, 1918: Cases, 2,514; deaths, 100.
Poland				Mar. 10-May 18, 1918: Cases, 6,379; deaths, 570.
Lodz	Mar. 10-Apr. 28	470	79	
Warsaw	do	3,428	376	
Spain:				
Almeria	Apr. 1-30	1		
Tunisia:				
Tunis	May 18-June 28	11	3	
Do	June 29-July 12	4	2	
Union of South Africa:				
Cape of Good Hope, State				Sept. 10, 1914-Apr. 21, 1918: Cases 4,587 (European, 34); deaths, 939 (European, 25). June 2-15, 1918: Present in interior towns among natives.
Natal				Dec. 1, 1917-Apr. 21, 1918: Cases, 50; deaths, 11.

YELLOW FEVER.

Brazil:				
Bahia	Apr. 27-June 29	25	6	
Do	June 30-July 6	4	2	
Ecuador:				
Guayaquil	Apr. 1-June 30	74	39	
Naranjal	do	2	1	